NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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IRRIGATION.

MANY writers on agriculture have been unanimous in urging the importance of irrigation, especially on soils which are naturally dry, and susceptible of being affected injuriously by drought; and in many situations, it is certainly to be regarded as one of the most useful and important operations which come within the province of the farmer. Water, or, at least, moisture, is one essential condition of vegetation, for water, either directly or by its decomposition, contributes to the nutrition and sustenance of every cultivated plant, as well as to the vegetable world in general. This fact, and the importance of irrigation as a branch of agriculture, was well understood by the ancients. Homer, in the Iliad, says, in allusion to the subject:

——"The peasant with his spade, a rill
Conducts from some pure fountain, through his grove
Or garden, clearing the obstructed course."

And in the Odyssey, when he describes the wonderful beauty of the gardens of Alcinous

——"Amid
The lovely scene, two fountains welling forth,
One visits into every part diffused,
The garden round."

And Virgil, in his Georgics, expresses himself in very much the same manner, while most of the ancient writers, historians, as well as the children of Parnassus, have recorded innumerable instances of its adoption in oriental countries, as a means of vegetable enrichment, and sustenance to crops.

In China, it has been practised from the most remote epoch of which the historical records of the country furnish any account. In some parts of Asia, particularly at Mysore, irrigation, as a branch of agriculture, is under the express auspices and control of government. In the Milanese territory, it is probably adopted to a greater extent than in any region, and ditches, tunnels and canals are everywhere seen running in every possible direction through lands, the unsurpassed beauty and luxuriance of which attest most conclusively, the advantages resulting from their efforts. These life-giving veins were opened centuries ago, and the continuance of an adequate supply of water in them for all the numerous and multiplied purposes of agriculture, is still, more than formerly, an object of popular solicitude. So highly, indeed, are the advantages resulting from this universal diffusion of water estimated, that the canals and viaducts embraced in this system of general irrigation, are placed under the jurisdiction of the government, the same as are the highways.

The wonderful fertility of Egypt, or that part of it rather, which is known by the appellation of the "Delta," bordering upon the river Nile, and periodically submerged by the exudation of its waters, is proverbial. "To this river," remarks a celebrated traveller, "Egypt is indebted for its fertility and happiness; for as it seldom rains in the inland parts of the country, and the soil is naturally dry, if the lands were not annually watered by its overflowing, Egypt would be one of the most barren regions in the world."

Water, in almost all cases, contains fertiziling particles which are exceedingly beneficial to vegetation. When water has stood for a considerable length of time on the surface of the soil, it is found to be pregnant with nutritive matters, which it has imbibed during its quiescence, and which are in a condition to act beneficially, and with great energy, when applied to plants or crops of any kind. The water conveyed by rills and streams, is never without fertilizing powers. When applied by irrigation

it does not only supply a necessary and indispensable condition of vegetable life in furnishing a solvent for the inert and soluble matters already contained in the soil, but it supplies the actual food of vegetables in a state of solution, and consequently ready for their immediate appropriation and support.

There is no substance that enters into the organization of the living system of plants, that can be taken up by the roots, as food, except in a state of solution. Hence the powerful effects produced by copious and frequent irrigation in seasons of excessive drought, and when the natural supplies of the soil are so far exhausted as to cause it to parch, and the soluble humus contained in it, to become dry and incapable of yielding its juices to the roots it is designed by nature to supply. In many places, the natural facilities for introducing a system of general irrigation, which would subserve the wants and supply the necessities of a whole community, as in the cases above mentioned, are not to be found; yet there are a great many farms at least, that might be effectually and permanently irrigated, at very small expense. It is already done, in some instances in our knowledge, with the happiest results.

That irrigation and thorough draining must go together, we are aware, and to establish a complete system would be a work of considerable time and expense on a large farm. But the subject is one of importance, and ought to be familiar with the thought of every farmer, so that in his annual operations he may have the object in view, and that they may have a tendency to the beginning of the work.

It seems to us that the character of our summer climate is settled—it is to be dry; so dry, that without artificial means, either of deep trenching and high manuring, or by irrigation, many of our crops must annually suffer. It is the part of wisdom, then, for the cultivator to have in view some method of averting an evil which shall annually reduce his profits and blast his hopes.

BIOGRAPHIES.—Some weeks since we stated that it would be a part of our plan hereafter to publish brief biographical notices of men distinguished for their ability and influence in matters pertaining to agriculture. We have already given a notice of the late FREDERIC HOWES, Esq., of Salem, and are now furnished with a memoir of the late Professor ZADOCK THOMPSON, of Vermont, the State Naturalist at the time of his death, and long eminent for the interest he manifested in every thing that promoted the prosperity and tended to adorn rural life. We shall soon find a place for this sketch.

PEPPERGRASS AMONG THE CUCUMBERS.—A gentleman from the western part of the State informs us that a plant or two of peppergrass in a cucumber hill, will keep off all yellow bugs.

For the New England Farmer.

CARE OF COLTS.

MR. EDITOR:—Knowing the inattention usually shown to questions asked through the public prints, I take the liberty of being one (perhaps of the five hundred) to give answers from practical experience, to the questions asked in your February number of the Monthly *Farmer* in regard to raising colts; and will here say that it is much the custom of breeders generally to care very little for colts, and until of late years there was no stock raised, to which so little care was given. I will make answer in the same order as the questions were published in the February number.

1. Keep colts in good order, not too fat, with a variety or change of food. Oats, cut feed or roots, and two or three quarts of grain, not more, per day.

2. Wean colts before taking up for winter, if strong and lively; if not, afterwards, but according to the time of being foaled.

3. The colt should be weaned according to the strength of it and its dam, but generally at about the age of six months.

4. If the colt was a late one, by all means. It would not materially injure the mare, if she could be kept in good flesh and spirits; but if a large and strong colt, it would reduce the strength of the mare. It is not advisable to let a colt draw on the mare longer than can be helped.

I will here remark that there is no particular need of cleaning or rubbing, but feed and water, regularly, and keep them warm in winter, and by this, and kind treatment push them forward for the first two years. But above all things to begin with, —breed from the best blood to be had, as they are more profitable, and the expense is just as much to raise a good one that will bring a $150 at a year old, perhaps $300, as one that never will bring much.

If these answers meet your ideas, use them as you will; if not, why they may be sent with the rest of the rejected ones to the fire.

Respectfully, your obedient servant,

Feb., 1856. M. A. C.

For the New England Farmer.

SPROUTED GRAIN.

MR. EDITOR:—In the February number of your interesting and valuable paper, I find an inquiry from Mr. W. Bugbee, respecting the sowing of grown or sprouted wheat. During the last twenty years I have usually sown grown grain and obtained fair crops. The last season my grain, both wheat and rye, was badly grown, so much so, as to render it wholly unfit for use as to making bread. I sowed both kinds of it last fall, which came up well and looked as well as usual when the snow came. It would be prudent, when grain has been much sprouted, to sow a few quarts of seed extra, to the acre. But I will give our friend B. my method of testing seeds, both of grain and grasses, which is, to fill a tumbler nearly full of milk-warm water, lay upon the water in the tumbler a piece of cotton batting, having previously scattered some seeds to be tested into the cotton; set it in the sun in a window, or keep it in a warm place, and in forty-eight hours or less the seeds will show their vitality, if they have any in them. The above is a sure test and no mistake.

One reason why grown grain sometimes does not come up may be, its heating in the mow or stack before threshing, in which case it cannot be expected to vegetate, as the life-principle is destroyed.

Agawam, March 4, 1856. J. E. FERRE.

TENTH LEGISLATIVE AGRICULTURAL MEETING.

REPORTED FOR THE FARMER BY H. E. ROCKWELL.

The *tenth* Legislative Agricultural meeting was held in the Hall of the House on Tuesday evening. Subject for consideration, *"Root Crops."*

Dr. FISHER introduced Mr. COOLEY, of Conway, as the chairman of the meeting, who, on taking the chair, stated that he was unexpectedly called upon to officiate, and was consequently unprepared to make any remarks upon the topic for consideration, and he would therefore leave the conducting of the meeting to others.

Mr. BROWN, of Concord, editor of the *New England Farmer*, said he thought we did not yet fully understand the value of root crops. In England they are highly valued, because more can be obtained from the same surface for the support of cattle, by their cultivation, than by the cultivation of grain, and because they are valuable in producing beef and mutton, which are in great demand there. They are a favorite diet for sheep. With us, there is a prejudice against the cultivation of roots, perhaps on account of the amount of labor required. They need a deep soil, and most farmers have not got into the habit of cultivating deeply. Not more than one farmer in a hundred, in Massachusetts, had made any fair experiments in trenching. There are sandy loams, and in some cases, clay loams, that are well suited to raising roots. If well cultivated, from six hundred to twelve hundred bushels may be obtained from an acre. He had raised parsnips at the rate of twelve hundred bushels to the acre. The mangel-wurzel is very easily raised; it grows large, and is always an excellent root for stock. It grows much out of the ground, and, therefore, seems to require a different kind of cultivation from some other roots. In cultivating, it is necessary to have the ground well pulverized, and then two furrows are turned together, and upon the top of the ridge thus formed, the seed is sown; the ridge being first flattened a little. The labor of harvesting them is less than that of turnips, or ruta-bagas. Cattle are very fond of them, and they are highly nutritious. He had not succeeded so well with beets as with other roots; but he had no doubt they could be raised at a handsome profit.

Round turnips may be cultivated easily by sowing them upon the land which is designed for grass, the ground being first plowed in July, and thoroughly prepared for grass, and the turnip seed being sown, along with the grass seed. From three hundred to seven hundred bushels per acre may be obtained without any extra labor except that of gathering them. This method impoverishes the soil very little. He thought, in the eastern section of the State, the potato must be thrown out of the question as a root for stock feed.

The advantages of feeding roots to stock were next referred to. He had been told that milk could not be made for market unless the cows were fed on meal of some kind; but he had found it too expensive to feed wholly with meal and hay. Having determined to try roots, after an experiment of feeding six cows with meal one season, he fed the same six cows, with the same kind of hay, and with roots the next season. The roots were of various kinds, the mangel-wurzel, beet, ruta-baga, round turnip, parsnip and carrot, and these were mixed in feeding. After being milked in the morning, each cow was fed with half a bushel of mixed roots, which they ate greedily. There was no complaint of the turnip taste in the milk, and his milk-man returned him cash for twice as many cans of milk as he did the year before when they were fed on grain. That experiment had satisfied him that more milk could be obtained by the use of roots than by feeding a certain amount of meal a day, say three quarts a day, as he fed his cows the first winter. The milk from roots is perhaps of a poorer quality, but milk *sellers* rarely have any qualms of conscience about that, if they get a greatly increased quantity. Mr. Webster was a careful *observer*, and although he never did a day's work on a farm, perhaps, after he left the old homestead, he watched the operations of others in farming narrowly; and there are many better farmers who never did a day's work than some who have been at the plow-tail all their lives, because they have been close and accurate observers. They would be able to go on to a farm, and direct its operations well at once. So Mr. Webster rarely talked about farming, any where, without bringing in the root crops. He saw that their cultivation would be of great benefit to New England farmers. In closing, Mr. BROWN expressed the opinion that more could be made from a given number of acres by the cultivation of roots, than by the cultivation of grasses and grains.

Mr. WILLIAMS, of Hadley, was next called upon. The soil in his town, he remarked, was, in every part of it, susceptible of cultivation. But root crops are not generally raised there. The soil is so good, and grain is so easily raised, that roots are neglected. They were probably too negligent in that respect. He was, however, of opinion that they might be raised with great advantage, not only in his vicinity, but throughout the State.

The chairman stated that his cultivation of roots had been principally confined to potatoes. He had had very little rot among them, and invariably had

a good crop. He spread his manure broad cast, and plowed it in, to the depth of eight inches. He put ashes in the hill sometimes, and found them beneficial. Guano put in the hill, had caused his potatoes to rot. His potatoes cost about sixteen cents per bushel, which was less than the expense of raising a bushel of carrots.

Mr. BROWN stated the result of feeding round turnips to a cow for fattening, to which he fed thirty bushels, with hay, and made her very fat indeed, so that she was sought by the butchers at a high price. In preparing the land for turnips, he pulverized it well, and levelled with brush harrow.—The seed was sowed in drills marked out with a machine prepared by himself. The labor of sowing in that way was very little, and they were weeded principally with a wheel hoe. He had recently seen a plan of a cultivator which weeded both sides of a row at once, but he had not seen it tried.

Mr. J. L. LOVERING, of Vermont, was next introduced, who said that though root crops were perhaps less cultivated in Vermont than in Mass., there were few farmers who do not raise more or less. They raise many sheep, and it is becoming an axiom that no farmer can have a good flock of merino sheep who does not feed them with roots as often as twice in a week. The green food seems to prevent some of the diseases to which they are subject when not thus fed. Ruta-bagas are raised principally for feeding stock. He had not succeeded well with getting his carrots to germinate, as for some cause or other the seed failed; but when they came up well he had no difficulty in obtaining a large crop. He had raised at the rate of twelve hundred bushels to the acre, and he thought them better than ruta-bagas. Potatoes are still fed to stock a good deal in Vermont. Many are raised, and if they will not bring in market about twenty-five cents a bushel they are considered worth that to feed out. Some farmers cook ruta-bagas before feeding, and one gentleman had recently fattened a pair of old cattle with ruta-bagas cooked, and made them very fat. He thought ruta-bagas worth twice as much when cooked as when fed raw. Turnips are fed to sheep, and are thought to be better for them than carrots or other roots, producing a better quality of milk for the lambs.

Gen. TOWNE, of Worcester county, had a very high opinion of the importance of roots for feeding stock; the sugar beet, for beef and for stock generally, was decidedly the best root that grows, in his opinion. One great advantage in raising them is that the tops are very good indeed for young hogs. He said he always meant to have some pigs about the first of September, so that about the first of October the milk of the mother would hardly be sufficient for them. Then he had a yard of sugar beets near, and he would make a little hole in the fence so that the pigs might understand they were getting into mischief by getting among the beets, and they will eat off all the leaves, which are as good as green corn for them, and the eating of them off does not injure the crop at all. He thought the leaves more than paid for the labor of raising those which were near the hog-pen.

He thought Mr. BOWN had slandered potatoes. They are decidedly better for milk cows than carrots. For hogs he always boiled them. A little meal, say a quart to a half a bushel of potatoes, he admitted, would do a great deal of good, if fed regularly. He thought turnips injured milk. Carrots he had found to be good for horses when they were not worked; they will fatten well upon them. At the present time, when corn is woth $1,25 a bushel and hay more than a cent a pound, he was willing to pay thirty-three cents a bushel for potatoes to feed to his stock.

Mr. BROWN said if he had slandered the "murphies," of which he was not aware, he would "acknowledge the corn," if Mr. TOWNE would state his method of cultivating sugar beets.

Mr. TOWNE replied that he prepared the ground for them precisely as Mr. BROWN did for the mangel-wurzel. He took pains to put but a single seed in a place, dropping them in little holes made by a stick, about five inches apart. He was quite particular about sowing them because it would save the labor of thinning them out. He put them in about two inches deep and covered with a hoe. The rows were about two feet apart. He did not soak the seed before sowing.

Mr. HOWARD, of Boston, thought the idea that turnips make poor milk was carried too far. He knew a farmer who fed his cows on Swedish turnips and chopped hay, and his customers complained when the turnips were omitted. He knew another man who has kept seventy head of cattle and fed several thousand bushels of turnips, and made excellent butter. At the exhibition of the New York State Agricultural Society, he received the highest premium for butter, his cows having been fed wholly on Swedish turnips and hay. The comparative value of different vegetables is important; but he believed the potatoes to be far superior to any other root for feeding to cattle. One winter he fed two cows one week with potatoes, the next on parsnips, and the next on sugar beets, giving them also constantly two quarts of meal per day. They were fed in this way through the winter, and the result was that the cows did best in those weeks when fed on potatoes, and poorest when fed on sugar beets. He thought the Massachusetts Board of Agriculture could not do a better thing than to direct attention to experiments as to the relative value of different kinds of root crops as feed for cattle.

Mr. WILLIAMS, of Hadley, spoke of the difficulty in raising roots on the Connecticut river valley, for

the reason that the soil becomes weedy from cultivation, and consequently there is more labor required to cultivate roots than corn. He had experimented some in the cultivation of potatoes. The disease has affected them considerably sometimes. When planted on a dry, alluvial soil, without any manure placed in the hill, they decayed much less. He had found great advantage in taking the seed from a distance. On one occasion he produced some Carter potatoes from a hill town twenty miles distant from his own farm. They were quite small, and he hesitated about planting them. But he obtained a very fine crop of excellent potatoes from that seed, while from large ones of the same kind raised on his own farm, he did not obtain more than two-thirds as many from the same quantity of land.

Mr. A. B. MAYNARD, of Onondaga county, New York, was next introduced. He said he was a native of Conway and went West when two years of age, when Western New York was a new country. But now they had reached an advanced position in agriculture in New York. He then spoke of the manner of raising the mangle-wurzel, beet and carrot there. They plow in the Spring so as to have the weeds killed, and plow two or three times also in the Summer. The manner of preparing the ridges for sowing and the after cultivation was similar to that stated by Mr. BROWN. He raised a mangle-wurzel that weighed ten pounds when washed and with the top off, and a carrot that weighed six pounds. He had tried fattening cattle on roots and hay, keeping them shut up all the time, and found that they fattened faster when thus treated than when allowed to go out to drink. He preferred the white sugar beet to any other root for feeding stock. In his opinion, they improved the land by shading it. In reply to inquiries, he said that he had not found the sugar beet to exhaust the land. He had cultivated them many years on the same field and found no depreciation in the crop.

To this it was suggested by Mr. EMERSON, of Boston, that the soil of that country was once the bottom of a lake, and very fertile, and of course could not be taken as a standard for others.

Mr. LOVERING spoke with reference to the necessity for changing potatoes, in answer to the remarks of Mr. WILLIAMS, stating that he had cultivated one variety which he knew had grown on his farm for thirty-five years, and he had no doubt he obtained as good ones from them last year as were ever raised anywhere.

Mr. DODGE, of Sutton, spoke of the difficulty from weeds among root crops, and said that he had killed the weed seed in the manure by putting salt into the manure.

Mr. BUCKMINSTER advocated the planting of small potatoes, of about the size of hens' eggs, or even smaller, if sound. If they are equally good, there is an advantage in using them—because more plants can be obtained for a bushel. He knew a gentleman by the name of Blanchard, of Wilmington, who had tried planting small potatoes six years, and the last year the crop was quite as good as that of any previous year. He was glad that the cultivation of a variety of root crops was gaining favor. Carrots are worth $12 per ton in Essex County. One gentleman in Worcester County raised one hundred and forty tons, which he sold for from $10 to $12 a ton. In this connection, he spoke of the value of sweet apples, which he thought very beneficial for stock.

Gen. TOWNE said he had cultivated small potatoes six years and he considered them decidedly better than large ones. He would also feed sour apples to stock, if sweet ones were not to be had.

Dr. FISHER, of Fitchburg, stated that a gentleman in his town had planted very small potatoes between twenty and thirty years, and he found them as good as large ones.

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 8.

SOUTHERN COUNTIES—KENT AND SUSSEX.

If now my reader will take a map of England, and travel over it with me, by counties, the journey, even if it be tedious, will confirm the remarks I have made, in the seven former numbers, on the system of English rural economy.

England proper is divided into forty counties of different sizes. They are commonly divided into five groups—southern, eastern, midland, western and northern. We will commence our survey with the seven southern counties, the poorest of the five groups, to wit, Kent, Sussex, Surrey, Hampshire, Dorset, Devonshire, Cornwall.

Landing at Dover, we enter the county of Kent. This county has a character peculiar to itself, *first*, in its crops—half the hops produced in the kingdom grow in Kent, all kinds of seeds are produced for the supply of the London seedsman—kitchen gardens, on a large scale, abound near the capital —*second*, in the extent of its farms—many are not of more than ten or fifteen acres, few exceed two hundred acres—*third*, in its laws, by which lands are divided, on death of the father, equally among his sons, and if there be no sons, among the daughters. This county belongs to the great clay basin of London, and is not of easy cultivation. It adheres to its old methods of tillage, and the system of Arthur Young has not been adopted here. The wet lands by the banks of the rivers form almost the only natural meadows, except the celebrated Romney marsh, one of the richest pastures in the kingdom, situated on the coast, and covering an area of about 40,000 acres. There the fine race of sheep, known as the New Kent, takes its rise, which combines with a high quality of mutton, a wool superior to that of other English breeds. With the exception of this valuable breed of sheep, there is nothing remarkable in the stock of Kent. The crops are not what they ought to be, although im-

proved methods of tillage are spreading, and drainage is extending, and appears destined to alter the character of the clay lands. The population of Kent is 600,000, upon an area of a million acres, but not all dependent on agriculture—villas abound and commerce flourishes in the numerous ports of its coast. Wages are about fifty cents a day, and the rent of land is from five to six dollars per acre.

Sussex lies next to Kent, and contains about the same number of acres, but only 330,000 inhabitants. What is called the Weald occupies about half its surface, and is an extremely clayey tract of land, formerly a forest, which weald signifies. This tract, called Weald, is the most backward part of England, in point of agriculture. It is divided into farms of from 50 to 200 acres, rented at from a dollar and a quarter to three dollars and a half an acre; and generally speaking, the tenants are men without capital, and as ignorant as they are poor. Wherever rents are high in England farmers are, generally speaking, better off than where they are low. Improved implements are little known in the Weald; farmers thrash with the flail and employ oxen for tillage. These animals are strong and large, and a contrast to the other national breeds; and the cows, as is the case of all working races, are bad milkers. Our cows in New England would be better milkers, if not of the race of our working oxen.

The Duke of Richmond has his seat, Goodwood, in Sussex, and pays much attention to agriculture. He was an earnest opponent of the repeal of the corn laws.

The Weald, probably, cannot remain in the state it now is. Sir Robert Peel long ago remarked that it needed a large infusion of capital. But this is not easily found—it does not exist on the spot. The proprietors are not wealthy, nor the tenants. If the capital comes from abroad, it will come with a change, in the mode of farming and of property. If the large system of farming is introduced—and this is the favorite system now in England—what is to become of that population of small tenant farmers, who have gone on increasing under the present system? They will be forced to emigrate. Such is the decree of modern fate in England; and a harde fate it is.

Several successful attempts demonstrate what the land of Sussex may become, in the hands of men of ability and capital. Among these is the farm of Hove, near Brighton, tenanted by Mr. Rigden, containing about 740 acres, and let for a rent of $7750, including taxes and insurance. The annual work expenses are $15,000, divided as follows; wages $8500; tradesmen's accounts $1750; cost of manure and seeds $4750; total annual expenses, including rent, $30 the acre. Besides this, Mr. Rigden expended, on entering the farm, $60,000 to bring it into condition. This capital, according to the recognized rule in such cases in England, ought to give a return of ten per cent. Mr. Rigden, in order to be recompensed, ought to obtain a gross return of $28,000. This is a specimen of large English farming, in all its magnificence.

The following is the rotation of crops: forty acres in permanent pasture; of the remaining seven hundred, half is in grain, and the other half in forage crops. The 350 acres of grain are thus divided: wheat, 250; barley 40; oats 60. Of the 350 in forage crops, 20 are in beet-roots; 12 turnips; 42 swedes; 6 carrots; 50 potatoes; 10 cabbages; and the remainder in clover, rye-grass, lucerne, sainfoin and vetches. A greater breadth of land is here given to wheat and a less to turnips than is usual in England; but this is owing to the nature of the soil, which is more suitable for wheat than barley, and for roots, than green crops.

The stock Mr. R. keeps is as follows: 350 Southdowns; 20 tups; 21 milch cows; 28 farm horses and a small number of pigs. He does not fatten sheep, but sells, annually, about 250 lambs of six months, and about 100 ewes, which he replaces from his younger stock. This branch of farming brings him about $2,500. On account of the high reputation of his stock, his lambs fetch $500 apiece, and the ewes and rams more than double that sum.

His milch cows give an average of nearly twelve quarts of milk per day, which is sold in Brighton, making the return for each cow about $175 a year. Taking into account the sale of calves and fattened cows, this department brings in some $3500 to $4000. He sells, annually, $12,000 worth of wheat and barley, and $10,000 worth of straw, hay and potatoes. Of his twenty-eight farm horses, seven are almost constantly employed in carrying produce to market and bringing back manure.

Mr. Rigden's example has thus far had few imitators—indeed few have $60,000 to invest in a farm, especially in a district like Sussex.

Next the Weald, the county of Sussex presents one of the most primitive and prosperous districts of England—what are called the Southdowns. The soil of these hills is poor and arid, and resists all attempts at cultivation. This very sterility has proved their fortune. From time immemorial, they have been covered with flocks of sheep, that feed upon the short sapid grass, which is manured by their excretions. We have already spoken of the Southdown sheep—the most esteemed breed of England. The chief amusement of the wealthier classes of the English who flock to Brighton, in the season, is riding over these immense downs, where there is nothing to interfere with them—no hills, and very little heath or shrubs, but one uninterrupted green carpet of fine close grass. This land, thus neglected and left to itself, a desolate looking country, inhabited only by sheep, is the field of a skilful and lucrative kind of farming.

Thus far our journey has been over Kent and Sussex. M.

For the New England Farmer.

ONE WORD FROM SALLY ABOUT THE BUTTER.

MR. EDITOR:—I have made butter for twenty years, and worn out a good constitution in churning and working and salting butter. I bought, (when my husband was from home,) one of Fyler's Butter Working Churns, made by Henry Holmes, of Grafton, Vermont. The man said it would work and salt the butter, and I want the world to know that pedlar told the truth, and that there is one good patent churn. I think it makes more butter, and I know it saves one-half the work, and it does the work so easy and quick, that I am troubled to keep Mr. —— from churning. Now, sisters, I want you should assert woman's rights enough to pay five or six dollars for one of these churns the first chance you have, and if you get scolded a little by the lords of creation, never mind, if it only causes them to churn and work the butter. SALLY.

Keene, N. H., Feb. 8, 1856.

ILL-USING HORSES.

Mr. Gavin, V. S., a contributor to the *London Veterinarian*, offers the following remarks, on *ill*-using horses, which are adapted to our meridian as well as that of London.

"Allow me to draw the attention of your readers to a subject, which, although at first sight may appear a very unimportant one, yet, on a second view, seems to contain largely the tendency to mischief and misfortune; and the veterinary profession, I think, may safely be looked to, as likely to exercise a considerable influence in obviating the evil. I allude to the practice so common at horse-fairs, dealers' yards, &c., of rattling a stick and hat together, with the avowed object of frightening horses. It seems very questionable whether it be judicious, on the contrary, to teach a horse to be afraid at all; but, to associate in the animal's intelligence, terror on the one hand, and an article which may accidentally at any time create terror, on the other, appears very thoughtless. I have known many a case of tumble and run away, from just so simple a thing as a bat coming clattering to the ground. Not many horses will *stand it*. But what else can we look for? The last time they heard the sound, it, in all probability, was in connection with whips and sticks, fright, &c.

I have frequently heard it very gravely recommended by very knowing horsemen, to under-feed horses that are difficult to break. I suppose, on the presumption that hunger will tame a lion. I doubt if mere *hunger* ever tamed any thing; starvation might, but even then, the tameness, apparently, is more the result of the subsequent kindness than the previous cruelty. From a trial of my own, I infer the practice to be a bad one. That "an angry man is a hungry one," is proverbially true, this being one of the laws of organization; hence the soundness of British philosophy, in celebrating everything with a dinner; and I can see how an organization, disqualified to perform well the alimentary functions, should be attended, as often as it is in horses, with a fretful, bad temper, *vide* what we call weakly animals.

Horses, however, on the whole, get pretty severely punished for being made this way. Others of them, from careless breaking, riding, or disease, get a habit of stumbling, to which the punishing is applied very often as a remedy; and, although I never saw it do any good myself, and perhaps nobody else ever did either, yet I suppose it is impossible to allow such aggravated disobedience to go unpunished.

Horses frequently come under the rod for shying, as if they had no right to be frightened without leave. It seems hardly fair, but opinions differ. He may be going past a lime quarry, for instance; there is a noise, he gets uneasy, and then punished, to get more uneasy still; the next time he sees the same object, and a further punishment only settles him more firmly in the belief, that there is some unfortunate connection between a quarry or animal leap and the whip and spur. I have every faith in the efficacy of kindness, and none whatever in cruelty. This, however, is at the consideration of your readers, for their own individual adoption as a principle of action in the treatment of animals.

I am your very obliged servant,

WILLIAM GAVIN."

For the New England Farmer.

PRICE OF MILK, &c.

MR. EDITOR:—In a late number of the *Farmer* a correspondent inquires concerning the difference in the measure by which milk has been sold, and the legal one, and was glad to hear that one more had dropped that old measure and commenced with the new.

But, sir, the object I have in view at this time is not to answer the question of your correspondent, but to call the attention of the community to the price paid for milk.

I find in my intercourse with the community that they entertain the grossest errors concerning the worth of the article and the cost of its production. They don't seem to think that a pound of good milk is worth more to one-half of the human family than a pound of beefsteak; that it will make more bone, and give more strength; yet the milk costs only 6 cents per pound, and the steak from 10 to 20 cents. Then, again, the cost of production has advanced nearly 50 per cent., and instead of being sold for 6 cents per quart, as it now is, should be sold from 10 to 12 cents, and my word for it, whoever lives to see five years more, will have to pay that for it.

People believe, many of them, that if a man raises milk he is on the high-road to fortune, and nothing but great mismanagement can prevent it. Now to such, I ask their candid consideration to the following facts:

First, good milking cows within fifty miles of Boston will average $50 apiece. *Second*, their keeping twenty-two weeks in summer, including cow corn, pumpkins, apples and hay, is worth $10. *Third*, the interest and depreciation upon each one cannot be less than 7 per cent, $3,50. *Fourth*, the buildings necessary to keep her in, and for the storing of hay, grain or roots, cannot be less than $5,00. *Fifth*, keeping 30 weeks at hay and grain. Dr. Dana, in his Muck Manual, see page 189, states that an average cow of fifty, kept in Lowell, consumed 167 lbs. of hay, with 87 lbs. of potatoes, per week, and the hay at that rate is worth $50,10, while the grain necessary for them, 2 quarts oil meal with 2 quarts cob meal or shorts, is worth 75 cents per week more, making $22,50. Now we will put it together, and see what it amounts to:

Keeping in summer, 22 weeks	$10,00
Interest, &c.	3,50
Buildings	5,00
Hay	50,10
Grain	22,50
	$91,10

Thus you see that it amounts to ninety-one dollars and over, and I have made no allowance for accidents of death, abortions, &c., which is quite an item with milk raisers. I have offset the washing of cans and care of stock with the manure. I do not believe there is a man in Massachusetts that keeps more than one cow, who has raised milk the past year, that has averaged three-fourths that sum for his milk at his door; and I assert distinctly that whoever has raised milk the past season, and sold it to the retailer, has lost by the operation from $10 to $40 per cow. I have sold milk at my door for the last five years, have a good set of cows, and I have never averaged $50 per cow, and the milk raised within fifty miles of Boston will not, I think, average $40 per cow. So much for getting rich by raising milk.

MIDDLESEX.

MORRISON'S RED APPLE.

At our particular request, Mr. Morrison furnished us, last fall, with two specimens of his incomparable Red Apple, from which we have had made the accompanying engraving. But no engraving can do the fruit justice—it cannot show the bright, deep red, nor the exquisite blending of colors in the shade, nor the minute russet spots, mere pin dots, which cover it in the sun. It is, indeed, a great accession to our list of first rate apples. We have eaten it now three years, and can speak with confidence. Mr. Morrison deserves the thanks of the community for bringing it into notice. He says:

FRIEND BROWN:—As I have sold most of my Reds, I thought I would give you a little further history respecting them. I have sold four bushels to one man in Boston, for nine dollars. I have a few on hand, in order to test their quality for keeping. Dr. PLYMPTON, of Cambridge, who gave me the scions, says he was informed by the owner of the tree, that the apple would keep into summer. My impression is that they will keep as well, or better than the Baldwin. The windfalls were considered, by good judges who ate of them last October, to be a *first rate* apple. This has been the general opinion of all who have seen and tasted the apple, to the present time, except Mr. Downing, of New York. He says the New York Pippin, and some others, are better. From what knowledge I have of them, I think there is no winter apple in the vicinity, that will command a higher price. I shall not, however, as fruit growers have been so much imposed upon, recommend the apple to be extensively cultivated, until I have further tested their qualities. Your candid judgment, sir, is solicited respecting the fruit, as you know the quality as well, or better than I do.

The original tree, supposed to be a seedling, stands on the Fisher farm, in Medfield. The trees are good growers, and very productive. I calculate to use all the scions I can get this season, and re-

graft trees which have proved to be almost worthless.

If farmers would study and practice that economy in all the various branches of farming which is their privilege to do, they need not go hungry, or with an empty purse. It costs no more to propagate a tree which is productive, and bears fruit that will command the highest price, than it does to propagate a barren, worthless one. I have a few trees that were almost worthless when I purchased my farm, but by using a little theory and much practice, well combined, they now pay me the interst of two or three hundred dollars a tree, annually.

Now, friend Brown, I confidently believe that I have received more net income from the labor expended in the management of my fruit trees, than I have from all other sources of farming put together, although part of my theory which has produced such a result, has been considered bad by some of your correspondents.

Give us that economy and practice which has made many a poor man rich, and which brings in the most dollars from the least amount of labor. I am propagating thirty or forty varieties of apples. Some of them are seedlings. If any should prove worthy of a place in the records of good fruit, I shall cheerfully contribute to friends who are fond of the same. N. P. MORRISON.

Somerville, March 24, 1856.

ELEVENTH LEGISLATIVE AGRICULTURAL MEETING.

REPORTED FOR THE FARMER BY H. E. ROCKWELL.

The *eleventh* meeting of the *Legislative Agricultural Society* was held in the Hall of the House on Tuesday evening, as usual. The subject of discussion, as previously announced, was *"Neat Cattle."*

Mr. W. J. BUCKMINSTER, of Boston, junior Editor of the *Ploughman*, was invited to act as chairman, who said the number of varieties of neat cattle most common in New England were the Natives, Devons, Durhams, Alderneys, Herefords, and some others. He went on to specify some of the distinctive characteristics of these varieties. The Devons are small boned, rather medium sized, color good, skin yellow, disposition remarkably gentle, whether as bulls or as oxen. The oxen, which are half bloods of course, in this country, are good for work, docile, quick enough, and generally large enough for most purposes of farmers in this vicinity. They are good for beef. He then spoke of the milking qualities of the cows of this breed, and represented them as very good. In order to show their relative value in this particular he read a statement which has once been published, of the amount of butter made from a cow, owned by Thomas Motley, of Jamaica Plain. This cow, Flora, was of the Ayrshire stock, and was from four to five years of age when the milking for the year commenced. During the year 511 pounds and 12 ounces of butter were made from her milk. During the last three months of the year, it took "almost exactly" five quarts of milk to make a pound of butter. The cow, Bloomfield, a North Devon cow, owned by Mr. Colman, in England, produced 21 pounds of butter in one week. He then referred to a statement made before a Lyceum in Barnstable county, by Mr. James Howes, of Dennis, who kept 16 cattle last year, comprising Devons, natives, and half breeds. He says it takes six quarts of milk of the Devons to make a pound of butter, and eight quarts of the milk of the Native cows for a pound. He does not state what quantity is required of the milk of the half breeds.

It has been stated in the *Massachusetts Ploughman*, that four quarts of milk of Devon cows made a pound of butter. It was done in the month of October, when the feed was very good, from two young cows that gave but three quarts of milk each per day. The amount per week would not, therefore, be remarkable. No statement was ever made that one pound of butter was made from four quarts of milk during the year. In a report made to a country society, a gentleman went out of his way to throw doubt on the statement, that a pound of butter was made from four pounds of butter. Another cow, owned by Mr. Reed, of Tewksbury, (a Jersey cow,) is said to have made a pound of butter from four quarts of milk.

Mr. ASA G. SHELDON, of Wilmington, said he would not endeavor to exalt one variety of cattle above another. He admitted that beef cattle had been improved by imported cattle, but he did not believe dairy stock had been improved. He never knew a heifer from a good native cow, and an imported bull, so good as the mother. He did not believe extra feeding was a benefit to breeding stock for the dairy. He was satisfied that there were 200 bulls, highly fed, in this State, that ought to have been slaughtered last fall. Bulls ought not to be kept till they are over two years old. He thought that in case of small farmers who could not well afford to keep much stock, heifers should be bred to work. He wanted to have premiums given for the best broke pair of heifers. He had seen heifers worked to good advantage by saving the keeping of oxen, and they were not injured for milk cows. He had known one farmer who had spent $4000 in keeping bulls that were of no profit to him, and ought to have been killed to give place to cows. He did not believe the imported cattle had been of any essential benefit to the country, on the whole.

Dr. HARTWELL, of Southbridge, thought there were fewer objections to the Devon cattle than others. The objection in his vicinity was that they were too small for beef. Oxen should yield 1200 pounds neat weight for beef. He had seen in New York a cross of Devon and Durham which improved the cattle in size, but in other respects they had not been tested. The Devon cows, he considered good,

but could not say they were extraordinary. He had raised a heifer from a native cow and Devon bull that was better as a milker than the mother. He thought it desirable to increase the size of the Devons, and if that could be done, farmers might rest satisfied. This could probably be done better by crossing with good native cattle than with Durhams. He had been led to suppose that the Durhams would deteriorate in size in this country, and on that account he would prefer a half blood to a full blood imported animal.

Mr. WILLIAM BUCKMINSTER, senior Editor of the *Ploughman*, said that the best cow he ever had was a native cow and he made from her 14¼ pounds of butter in a week. She weighed about 1100 pounds. He had a pair of oxen, half Devon, which he fattened last fall, which weighed 3300 pounds alive. They were fattened about two months, principally on carrots, with half a peck of cob meal part of the time.

Mr. SHELDON said that he did not believe that a good or bad disposition was confined to any particular breed of cattle. A cow having a hazel eye will have a good disposition, and one with a black or white eye will have a bad disposition. He thanked his friend, Mr. BUCKMINSTER, for confessing that his best cow was a native.

Mr. BUCKMINSTER.—I meant to say that she was the best not only as to the quantity of milk but its quality for butter. But he raised nine calves from that cow, not one of which was good for anything for milk.

Mr. SHELDON.—Did not you take her to an imported bull?

Mr. BUCKMINSTER.—No sir, but to a common bull.

Mr. DODGE, of Sutton, spoke of the importance of trying to obtain a distinctive race of cattle of our own. He believed it would be better to work bulls, even though they are kept for breeders of stock. He had a pair, one of which is ten years old, and he intended to work him with another, this season.

Mr. SHELDON suggested to him as a matter of advice as to breaking them to work, that it would be a good plan when they are first yoked, to put two yokes on them at a time, which would make it impossible for them to turn the yoke.

Mr. DODGE said that he had kept a good cow till she is now seventeen years old, but he had never obtained a calf equal to the mother, for milk.

General SALEM TOWNE was called on to speak of the bull, Holderness, which was kept by Mr. Parsons, of Carlton. He testified to the great excellence of that bull, and said that the stock in his vicinity had been greatly improved by the introduction of that bull into the country. He said he saw six pairs of cattle, down on the Penobscot River when he was on a visit there, and from their appearance he judged them to be Holderness cattle, though he did not know that there were any of that breed in the vicinity. After examining them, he was satisfied they were Holderness cattle, and told the owner of them that he was sure they were. "No," said he, "they were raised here in this neighborhood." "But what bull are they from?" "They are from the Towne bull," said he. That reminded him that he had sold several years before, a Holderness bull to a gentleman in Maine. He went to see the bull and found it was the same animal that he once owned.

Mr. HOWARD, of Boston, said he had in his possession the history of the bull Holderness. He was obtained in England, and was from a breed as much entitled to be called Durham as any thing. After the owner got him to this country he called him "Holderness," his former name being Fortunatus. He was sold to a man in Connecticut, and after being kept there some time, he was sold to a man in New York, and he died in a distillery. His qualities corresponded to those of the short-horned breed, in respect to the comparative coarseness of the flesh. Cows of that stock give a large quantity of milk, which makes a great quantity of cheese, but is not good for butter. Farmers should not judge breeds by simple specimens. They should examine many animals of all breeds.

Mr. W. BUCKMINSTER said that he considered it important to keep bulls till they are large, in order to keep up the size of stock. He had one which was eight years old last year, and he was as useful as a breeder as ever before. He said he had six Devon cows, whose milk was so nearly alike that it could not be distinguished, and this is of a quality which will produce a pound of butter from four quarts of milk, in the month of October.

Mr. R. S. FAY, of Lynn, was highly pleased with many of the remarks of Mr. SHELDON as to the superiority of native cattle. For beef, work and milk, there is no breed that is equal to our native stock in all these particulars, as they are found in Mass., and perhaps in Maine and N. Hampshire. But in some respects, he thought that these might be improved by crossing them with foreign stocks. To cross with Devons, Alderneys and others may be profitable if it is done with judgment. With reference to the preservation of the good qualities of a good cow, he said it was found, by a long course of experiments in Switzerland, that the way to accomplish the result was through the bull calves from the good cow and not by the heifers. A bull from a cow that is a good milker, is almost sure to perpetuate in his progeny the good qualities of the mother. That principle is an important one, and it is in harmony with statements made by gentlemen this evening, and it is considered as fully settled in Switzerland. The size of cattle may be increased without doubt by the introduction of foreign breeds, and it would be well to introduce them

from countries whose climate and soil corresponds to our own as nearly as possible.

Mr. EMERSON, of Boston, didnot think large cattle desirable, but he preferred smaller ones as being more hardy and more easily kept.

Adjourned to next Tuesday evening, when the subject will be "*Horses and Farm Stock.*" Mr. HOWARD, of the *Cultivator*, will give an address on the first branch of the subject.

For the New England Farmer.

WORTHLESS GRASS.

MR. EDITOR:—In the *New England Farmer* for February, is a communication from R. B. H., in which is noticed a species of worthless grass, that has taken possession of much of the pasture land in the vicinity of Mount Monadnock, in New Hampshire, to the exclusion of other grasses, and is a serious evil. He mentions that the same difficulty is experienced in Massachusetts, especially in portions of Franklin, Hampshire, and Worcester counties.

In this county, Hampshire, there are thousands of acres of rough, hill-side land, and many acres more, smooth and level, with a light soil, that produce little grass, except a species that is nearly valueless. This mean grass was not uncommon in some towns thirty years ago, and has been gradually extending. It is the *Danthonia spicata* of the botanists, and in some books is called wild oats. The product is small, and of little value as grass or hay. In the spring, the brown leaves are all curled. In this town, the heads or panicles are disclosed between the 10th and 20th of June, and are soon after in flower. I suppose this to be the same kind of grass as that about Monadnock, noticed by R. B. H.

According to my observation, the Danthonia does not commonly take possession of the land, until the soil is exhausted, and has become too poor to bear anything more valuable. If this be so, nothing will remove the evil but enriching the land. Many of these hill-side pastures cannot be cultivated; where land covered with Danthonia has been plowed, and sowed or planted, without manure, it has generally produced a light crop that hardly paid for the labor, and has not been improved. There may be some exceptions.

Our farmers have no manure to spare for these lean pastures, and they are not likely to become more productive than they now are. Many grazing farmers do not keep more than one-third or one-half as many domestic animals as they did thirty or forty years ago. Thousands of farmers in Massachusetts could not live from their farms, if they did not sell wood and timber. The forests are fast disappearing in every direction. S. J.

Northampton, Feb., 1856.

FARMERS' GIRLS.—The beautiful piece of *original* poetry communicated by "P. A. P.," from *Little Compton, R. I.*, was written for the N. Y. *Tribune* by HELEN M. LADD, and may be found on page 259, of the *Monthly Farmer*, for 1854.

NEW BOOKS.

THE CRANBERRY.—C. M. SAXTON & Co., N. Y., have published a beautiful little work of 120 pages, entitled "*A Complete Manual for the Cultivation of the Cranberry, with a description of the best varieties.*" By B. EASTWOOD. It is illustrated by a very tasteful title-page and several engravings of the varieties of the cranberry, of sod and cutting planting, and the diseases of the vine. The book is printed on large, elegant type and fine paper, and would really be an ornament to the parlor table. Price 60 cts. For sale by F. S. SAXTON, 81 Washington Street, in Boston, and by the publishers, in New York.

THE AMERICAN GRAPE GROWER'S GUIDE.—This is another of SAXTON & Co.'s useful and elegant works, by WILLIAM CHORLTON, author of "The Cold Grapery," &c. It is illustrated with numerous engravings, and gives plain directions on "Houses and Conveniences, Artificial Heat and Apparatus, Borders or Prepared Beds, Planting and Management the first year, Management for the second year, and Permanent Treatment, the Forcing House, Pot Culture, Retarding House, List of Varieties, Pruning and Training, Propagation and Raising of New Kinds, Diseases, Insects, and how to destroy them, and the Vineyard and Out-Door Culture." Here you have the whole story by one who knows *what to tell* and *how to tell it.* Price 50 cts. For sale as above.

THE STRAWBERRY CULTURE.—A Complete Manual for the Cultivation of the Strawberry; with a description of the best varieties. Also, notices of the Raspberry, Blackberry, Cranberry, Currant, Gooseberry and Grape; with directions for their cultivation, and the selection of the best varieties. Third Edition Revised. By R. G. PARDEE. With an Appendix, containing the Experiments of some of the most successful cultivators in the country. This book is handsomely illustrated, and printed in the same beautiful style as that on the Cranberry. The above-named books are handsomely bound, so that they are as attractive outside as they are in. The price of each is low, and the information—flowing as it does from such reliable sources—of so much importance, that every person who intends to cultivate any of the plants treated of, ought to possess a copy. Everybody wants a grape vine, those who have land and those who have not. We expect soon to see them growing in the sitting-room, brought from the border through the window, trailed in graceful draperies abont the room, and loaded with delicious and fragrant fruit. Are there any doubters? Let them read these books.

DAVY'S DEVON HERD BOOK.—American Edition, Edited by SANFORD HOWARD, Esq., Editor of the Boston *Cultivator*. This book ought to have been noticed months ago, but got laid away with other

books, and was forgotten. If those interested in the Devon race of cattle—and who is not—desire to see their portraits in perfection, and learn the pedigree of the most distinguished animals of this breed, let him refer to the Devon Herd Book. We know of no better hands into which the task could have fallen to prepare an American edition, than those of Mr. Howard.

For the New England Farmer.

EXPERIMENTS WITH SUPERPHOSPHATE OF LIME.

MR. EDITOR:—Having made a trial for the first time, during the past season, of DeBurg's Superphosphate of Lime, I send you the results, hoping they may be found useful to those engaged in agriculture.

The first was 150 pounds sowed the 21st of April on 60 square rods of natural mowing. The land was of good quality, but much exhausted by long cropping, situated on a side hill, with a clay subsoil, By the 1st of June the effects were visible at a considerable distance, and many persons visited the spot to observe the change it produced. In the middle of the lot my hired man, when he sowed the phosphate, had marked out the initials of a name, by putting on a much greater quantity of the fertilizer; those initials could be plainly read, and the grass upon them was probably three-fold greater than where only the average quantity was sown. This fact is important only as showing that the increase of crop was in proportion to the increased quantity applied. The clover, on the whole sixty rods, came up much thicker than upon the adjoining land, and at haying time it produced 33 per cent. more than where the phosphate was not applied. But this was not the least part of the experiment, for the second crop was still more remarkable than the first. It was fed down in the fall, and therefore could not be accurately measured, but no one who saw it doubted that there was an increase of at least 100 per cent. in the second crop. Nothing could well be more gratifying than the results of this experiment. It showed most conclusively the wonderful power of this fertilizer on grass land of the description named. I feel entirely confident that the first crop of grass *next year* on the same land will be much greater than it was last season.

I tried the same article on corn land. It was a dry knoll of poor exhausted pasture land, plowed in the fall, and in the spring 20 loads of stable manure spread and plowed in. The seed was the King Philip corn. Where the phosphate was applied in the hill at the rate of 400 pounds to the acre, the crop was doubled exactly, over that where nothing was put in the hill. The result on corn-fodder, though not so striking, was very satisfactory, the increase being about 50 per cent.

I tried the same on potatoes. Those called the Jenny Lind were increased about 25 per cent. Other kinds nearly as much.

By my advice several of the farmers in my neighborhood have made a trial of DeBurg's phosphate, and I do not know a single case in which it was not highly successful; and I am of opinion that there will be five times as much used in this town next season. All seem to be satisfied that they have found a fertilizer that can be depended upon, that will pay, and pay well.

The advantages of the phosphate are that it can be easily obtained, conveniently transported and readily applied. To manure a field at a considerable distance, or on a high hill, with barn manure, is a formidable affair, requires a strong team, and a great deal of hard work. To apply enough of the phosphate to produce equal results is a very small matter. It enables farmers to extend their planting beyond the extent of their ordinary manures. It is particularly convenient for small cultivators, who often have some land, but no manure. To such the phosphate is the very desideratum. It is applied as easily as ashes, and is so effective as to answer every purpose.

Should the quality of the article be kept up, I feel quite sure it will be rapidly introduced into use. The only fears I have, arise from the apprehension that it may be adulterated, and thus rendered less effective and satisfactory. I do not know but the superphosphate prepared by other manufacturers may be equally good, but DeBurg's is the kind which I have used, and of that alone can I speak.

I hope that others will give their experience in the use of it, whether favorable or otherwise, so that the farmers may have as much light as possible on the subject. AMASA WALKER.

North Brookfield, January, 1856.

For the New England Farmer.

BREAD, OATS AND CARROTS.

MR. EDITOR:—In the *New England Farmer*, monthly, for January, I notice two communications upon subjects of much interest,—"The most nutritious bread," and "The relative value of oats and carrots." Will you, or your correspondent, who is evidently quite familiar with the subject, oblige the readers of the *N. E. Farmer* by explaining why corn meal, containing two per cent. more gluten than fine wheat flour, will not make an adhesive dough? I had supposed corn meal to be deficient in gluten, partly because Dr. Pereira has said so, but the good Dr. may have been mistaken. A thousand pounds of fine wheat flour is said to contain two hundred and ten pounds, and the same weight of wheat meal three hundred and fifty-four pounds of tissue-forming materials. I do not quite understand the method of "ciphering out" a difference of more than fourteen per cent. Does the gluten, starch, fat, &c., differ in kind as well as quantity? Does one hundred pounds of fine wheat flour contain more or less nutritious matter than the same weight of oat or corn meal?

Is it true that the "potato-eating Irish" have "fair round bellies?" Mike Fagan declares it to be a "mistake entirely." Mike is an honest fellow and has seen the Irish—he speaks for Tipperary, and avers that not a potato-eating laborer with a big belly can be found in the whole country.

Boston, Jan. 16, 1856. W. H. H.

THE FARMERS' TOOLS.—On every farm there should be a good tool-house, or some place in the barn or shed, particularly appropriated to that use, for the shelter and security of the farming implements. The cost of a small building for the purpose, where the price of lumber is moderate, is

trivial, contrasted with its utility, and would be useful for other purposes when not required for the protection of tools. Many of our farmers are singularly remiss in the matter of protecting their agricultural implements. Carts, sleds, wheels, plows, harrows, spades, shovels, rakes, wheelbarrows, &c., are costly articles, and should by no means be exposed to the wearing effects of the atmosphere during those seasons when they are not in use.

For the New England Farmer.

METEOROLOGY, AS APPLIED TO CULTURE.

MR. EDITOR:—It was long ago said, that "snow was the poor man's manure;"—this being so, the prospect is, that his grounds will be liberally fertilized the coming season. Never have I known so continuous and substantial a coating of snow as has been for two months last past—say since the beginning of January. From all quarters, I learn that the depth has varied from *two to three feet*—so that it is is fair to estimate the average depth, at least, *thirty inches*. It has been solid and impenetrable to an unusual degree. Directly opposite the window of my morning room, it was blown into a drift, *four feet deep*, on Sabbath morning, Jan. 5th, and has so remained ever since, not settling more than nine inches. I mention this to show the little influence of the sun upon the drifts during the winter.

The same philosophy that prompts Lt. Maury to note the variations of temperature, in different parts of the country, should prompt the cultivators of fields and gardens to note the quantity and position of snow upon their ground. I remember the finest peaches I saw the last autumn were exhibited at the Rockingham Fair at Exeter, and were said to have grown in one of the shore towns, in the eastern part of New Hampshire, Kensington or Hampton, I believe. On inquiry why they should have grown so perfectly there, it was said the limbs that bore them were covered for months with a drift of snow. Here there was a fertilizing or protecting influence exerted by the snow drift, worthy of note—such a one as secured the first premium for the specimen, of the most delicious of fruits—the thoroughly ripened peach—even on the verge of perpetual frost.

My purpose is not so much to give a philosophical explanation of how these phenomena operate on culture—as to induce you, Mr. Editor, to gather in from your friends and correspondents, in different sections, such facts as have come to their observation and knowledge; and to enter them for record in your useful journal, so that those who come after us may understand for a certainty what were the peculiarities of 1856. Pardon the suggestion, that well observed and recorded facts are the *only* reliable basis of knowledge in culture—however otherwise it may be in political management, *know-nothingism* may succeed in this for a time—but not in the culture of the field and garden. In these, he that knows most, will as certainly succeed best.

I have often heard the remark—"this winter seems like the olden time"—but when you come to pin the speaker down to the particular time referred to, there is not one in a hundred that can give you any reliable information whatever. ESSEX.

Feb. 29, 1856.

ORGANIC AND INORGANIC.

An organized body is one having organs to secure the purpose of its being. An animal has arteries, veins, nerves, and glands, a heart, lungs, stomach, &c.,—organs having functions in the economy of life. A plant has sap-vessels, secreting organs, leaves, buds and flowers. Crystals of the metals and minerals have their parts arranged by a law as definite and inflexible as the bodies themselves,—a kind of organization. A gathering of citizens becomes an organized body by the choice of moderator and clerk. A Legislature is organized by appointing speaker and clerk. These officers are organs by which the design of assembling is to be accomplished. But the terms organic and inorganic, as technically used in agriculture, have nothing to do with the object, design or arrangement of parts, but refer simply to the element or elements of which the body is composed. The terms, thus used, may be convenient, and are easily understood. If we burn a body, those portions which become gases and fly off we call organic; those to which the fire gives no wings, we call inorganic. If we take a piece of hickory, for example, and burn, oxygen, carbon and hydrogen will fly off, and silix, magnesia, potash, &c., will remain. If you burn a cabbage stump, nitrogen will be added to the winged products by burning. If you burn a fresh bone, oxygen, hydrogen, nitrogen and carbon will fly off, and lime, phosphorous, iron, &c., will remain. The wood, the cabbage and the bone are organized bodies, composed of organic and inorganic substances, and, so far as we know, the inorganic potash and lime are as essential to organization as the oxygen and hydrogen. The fact that when you destroy the organization by fire, one part flies away, certainly proves nothing on this point. The inorganic are frequently called mineral elements.

Were we to apply scientific accuracy to the terms organic and inorganic, we should find them, in their best agricultural use, very indefinite and faulty. All would call a piece of chalk inorganic, and yet if you burn or heat it, almost half of it flies off in this same oxygen and carbon, and the remainder is lime; and even this lime, when subjected to a higher heat, is shown to be, in par,t a metal called calcium, in part this same winged oxygen. Inorganic water is composed wholly of the winged spirits, oxygen and hydrogen. So that chemistry soon brings us to elements, and of these, one is just as much organic, for ought we can see, as another. But in the agricultural use of the terms, if you burn an organized body, those substances which pass off are called organic, those which remain in the form of ashes, inorganic.—*Culturist and Gazette, Pittsfield.*

A REVOLUTIONARY INCIDENT.

The second volume of Irving's life of Washington has just been published. From it we cull the following anecdote. At the time Gen. Washington had his head-quarters in Cambridge:

"A large party of Virginia riflemen, who had recently arrived in camp, were strolling about Cambridge, and viewing the collegiate buildings, now turned into barracks. Their half-Indian equipments and fringed and ruffled hunting garbs provoked the merriment of some troops from Marblehead, chiefly fishermen and sailors, who thought nothing equal to the round jacket and trowers. A bantering ensued between them. There was snow upon

the ground, and snowballs began to fly when jokes were wanting. The parties waxed warm with the contest. They closed and came to blows; both sides were reinforced, and in a little while at least a thousand were at fisticuffs, and there was a tumult in the camp worthy of the days of Homer. 'At this juncture,' writes our informant, 'Washington made his appearance, whether by accident or design I never knew. I saw none of his aids with him; his black servant was just behind him mounted. He threw the bridle of his own horse into his servant's hands, sprang from his seat, rushed into the thickest of the melee, seized two tall, brawny riflemen by the throat, keeping them at arm's length, talking to and shaking them.'

As they were from his own province, he may have felt peculiarly responsible for their good conduct; they were engaged, too, in one of those sectional brawls which were his especial abhorrence; his reprimand must, therefore, have been a vehement one. He was commanding in his serenest moments, but irresistible in his bursts of indignation. On the present occasion, we are told, his appearance and strong handed rebuke put an instant end to the tumult. The combatants dispersed in all directions, and in less than three minutes none remained on the ground but the two he had collared."

For the New England Farmer.

THE STRIPED SQUIRREL.

MR. EDITOR:—In the *New England Farmer* for February, I notice a short communication upon the highly important, somewhat ancient and very perplexing question, "when the striped squirrel digs his hole, what does he do with the dirt which is displaced?"

That communication proposes one theory and refutes another. Now, I am moved to take my pen, not with the hope of casting any light upon a point so recondite, but to tell a story, which will illustrate another matter. I am willing, frankly to admit, that I have remained ignorant of the true answer to the above question; among all my researches in natural history, that discovery I have never made. Many a smart run after the provoking little creature have I had in my youth, terminated by his sudden disappearance in a small round hole, which seemed to have opened for his safety by magic.—No dirt about the mouth of his retreat indicated the agency of his paws; some underground power, I used to fancy, took pity on his feebleness, commiserated the fate which surely awaited him, if overtaken by a school-boy, and opened the earth beneath his feet at the critical moment when the club or stone was about to descend upon his head. I have procured water from a neighboring spring or brook, and carrying it in my hat, have poured it steadily down his hole, till he was forced by the flood to come to the surface, and have another run for life. This process demonstrated to my mind, that he had but one mode of communication with the upper world; but it determined nothing respecting the great question how he could dig his hole and leave no dirt behind him. And I was wont to return from such a chase with very much the same feelings, which, at a later period of my life, I experienced, after climbing to the top of the great Pyramid in Egypt, and exploring its inner chambers, I looked around me for evidence of the enginery by which such a work was accomplished, and could not find a chip to indicate the existence of a workman.

But I will tell my story. I dare say it is familiar to many of your readers, but it will bear reading twice. It runs thus:

In those days of darkness when the bar-room of the village tavern was the only rallying place for wits and loafers, when lyceums and farmers' clubs had not been invented, and when the temperance reformation had not yet invaded the right of men to assemble peaceably, drink riotously, and part quarrelsomely, in those days of old, there was, in a certain village inn, a circle of neighbors, met for the purpose of having what is called "a good time." In order to afford a sufficient excuse for the expense and consequences of pretty frequent libations, they agreed that each one in turn should ask a question; this question was to go round the circle; if any one could not answer it, he should *treat the company;* if all were at fault, the question should return to its originator; if *he* could not answer it, *he* was to treat the company.

After the sport had become animated, one of the circle, who was a wag in his way, proposed the question,—"When the striped squirrel digs a hole, what does he do with the dirt?" As you may suppose, no one could solve this knotty point. They all turned to the wag, and demanded an answer, feeling sure that he would have to pay the forfeit. When he saw their eagerness, he put on an air of superior knowledge, and coolly gave this answer: "Why, the squirrel when he digs his hole, leaves the dirt at the other end." Instantly and unanimously they shouted out, "but how does he get there?" "How does he get there?" "Ah!" said the wag, seeing them all in his trap, "that is a question of *your own* asking."

This is said to be the origin of that saying, so convenient, when one is hard pushed by a perplexing interrogatory. M.

Groton, March, 1856.

For the New England Farmer.

ASHES AND MUCK.

MR. EDITOR:—I have a piece of upland I wish to enrich by applying a mixture of ashes and muck from an adjoining swamp. I should say that the timber in and around this swamp was mostly hard wood, and the muck when dry is of a reddish brown. Should you think this to be a valuable kind of muck for fertilizing purposes?

Would August and September be a suitable time to cart out this muck and mix it with the ashes at the same time?

I would like to have you, or some of your correspondents, give a few simple instructions about mixing ashes and muck, at what seasons it should be done, and about what proportions should be used, how long it should lie before being applied, &c. As this field lies at an inconvenient distance from the barn, if I can get up a manure of this kind that will take the place of barn-yard manure, it will be of great value to me. D. T. A.

Northfield, Vt.

REMARKS.—We have already said so much on this subject that we prefer to leave it to some of our intellegent and practical correspondents. The

subject is an exceedingly important one, and scarcely too much attention can be given it. The muck-beds of New England are worth more to it than its share of California gold will be.

EXTRACTS AND REPLIES.

HORSES AT CATTLE SHOWS.

Having noticed a piece in your paper of Feb. 2d, signed "Middlesex," which I read with much interest, allow me to make a few remarks upon the same. It seems that the writer is much opposed to having horses show their speed at our fairs. It is well known for what purpose shows are held; that people may bring together the rich specimens of the productions of the earth; show the ingenuity of our mechanics, the skill of the fair sex, in making butter and cheese, and the handiwork which they accomplish with their needles. All this I like to see brought together, that I may compare with each other, and see if any improvements can be made. Let me ask who wants to go to a cattle show, and look ten or twelve hours on a fat yoke of oxen, a fine cow, or a nice dairy of butter and cheese? Our farmers have large and stout oxen which they like to show, and how large loads they can draw; and why not give the man that has raised a fine horse, the privelege of showing his speed?

The writer says, "Horse-racing has become the most important part of the performance." Shall that part be stricken out? I say no; let him produce the best specimen he can, for speed, for strength, for beauty, and all others that have specimens, do likewise, and all that attend, look at whatever their taste may choose. C.

Claremont, N. H., 1856.

POTATOES IN 1756.

Mr. Editor:—I saw in your paper a report of a large yield of potatoes. I have a report before me of a yield of potatoes, raised *one hundred years ago*, in the town of Granville, Mass.

I copy from my grandfather's papers the following: "About the year 1756 my father went to New York, and back again, on horse-back, and brought home four potatoes; two of them froze, so as to lose about half he planted; however, he had fourteen hills from what remained, and had four bushels of potatoes." N. Hitchcock.

Deerfield, Mass., March, 1856.

SUNFLOWER OIL.

Several inquiries having lately been made in regard to this article, we give the following from the Morgan (O.) *Chronicle*. The article is from the pen of Dr. S. A. Barker.

Some years since, several barrels of sunflower oil were made in this county, and those who remember it, never wish to see any more. Some of it was said to have found its way into barrels marked "Linseed oil," and was used for painting. The paint would not dry, and unless some better drier than any now known can be found, it is useless for that purpose. Some was burned in lamps, in Zanesville, we know. While burning it gave out a large quantity of gas, similar to that of charcoal, deleterious to life and health. It is totally unfit for burning, in a close apartment. Some was used for oiling machinery; but it was condemned even for that purpose. The seeds afford a large quantity of oil, but so inferior for all purposes, that its manufacture should not be encouraged.—*Albany Cultivator, Feb. 11th*, 1849, *page* 68.

Mr. Editor:—I send the above, not with any desire to enter into a discussion on the merit or demerit of sunflower oil, but simply to give the opinion of those who know the article; as I presume you prefer experience to theory on this subject. A Subscriber.

Middlebury, Vt., March 17th, 1856.

TO KILL TICKS ON SHEEP.

Prepare a solution of tobacco, of sufficient strength to kill a tick when immersed, then immerse the whole flock, one by one, taking particular care that there are no stray ones on the nose and face of the sheep, which, of course, are kept out of the liquor. The operation must be done from the 1st to the 15th of Sept., for two or three reasons. 1. All the eggs then have hatched out. 2. Then the wool is longer than in shearing time, (the usual time to kill ticks) and will consequently absorb more, and more effectually kill even the very last survivor.

E. B. M.

Remarks.—Is the operation a safe one?

RYE AND WHEAT CROPS.

Mr. Z. Howard, *Sudbury, Vt.*, states that some of his rye straw last year grew to the height of seven and one-half feet, and that on three acres of land he obtained seventy-five bushels of perfect Rio Grande wheat. He states, also, that between the hills, on two and one-half acres of corn, he raised thirty-one and one-half bushels of pea beans, and in the pods that grew on one stalk, he counted one thousand three hundred and seventy-five beans, and the product of another stalk was nine hundred and ninety-five beans!

GRAFTING THE GRAPE VINE.

Mr. Brown:—Did you ever know of the grape vine being grafted, with success? I, and many others in this vicinity, have grafted them, but in every instance it proved a failure.

New Ipswich, N. H., 1856. Mark Farrar.

Remarks.—We have never grafted the vine, but think it is successfully done by some of the nurserymen. Downing says, "it is attended with much success in the cleft manner, if treated as follows:—Cut your scions during the winter, or early spring, keeping them partially buried in a cool, damp cellar, till wanted. As soon as the leaves of the old vine or stock are fully expanded, and all danger of bleeding is past—say about the 10th of June, cut it off smoothly below the surface of the ground, and split the stalk, and insert one or two scions in the usual manner, binding the cleft well together. Draw the soil carefully over the whole, leaving two or three buds of the scion above the surface. If the root of the stock is a strong, native grape, the

graft will frequently grow ten or fifteen feet during the first season, and yield a fair crop the second year." So long as the grape vine can be obtained so readily by cuttings and layers, it is hardly worth while to graft much, as new shoots from the original root will constantly spring up.

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BOILING SHINGLES IN LIME AND SALT.

MR. EDITOR:—If the following fact is of any value, it is at your service.

There is a building in this place, covered with shingles that were taken from another roof, (where they had been in use some years) were boiled in lime and salt about five minutes, and then relaid. This was twenty-seven years ago, and these shingles look, now, as if they would last some years longer.

Other roofs that were treated in the same way since, appear well; they are clean and smooth, the moss does not form on them, and the water runs off readily.

There seems to be no reason why white wash, with the addition of salt, would not be beneficial when applied to a dry roof, in proportion to the lime and salt absorbed by the shingles.

Have you not observed that where the rain washes the lime from the chimney upon the roof, that the shingles remain sound longer than on the other part? Yours truly, S. E. P.

Springfield, Vt., 1856.

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MEAL FOR CALVES.

One year I began the winter with forty calves. The first part of the winter I sold three, as they were wanted for express purposes, which left me a flock of thirty-seven, not to die, but to be wintered, if in my power. All my time was devoted to the care of the calves and the rest of my stock. During the first of the winter, some of my neighbors would say, as they saw them, "you of course must expect to lose some, out of so large a lot." About the middle of winter, I found some three or four to have failed, or did not appear to look quite as well as formerly.

Thinking they must have extra feed of some kind, I cut ruta-bagas with a shovel very fine, and allowed two quarts, with the addition of a handful of oats, to each calf. They still failed under that feed. I thought of what I had read in the *Farmer*, of the value of meal; therefore, instead of the oats, I added a handful of meal. In a few days, I found them to be on the gain. They were all kept through that winter and the next. T. S. FLETCHER.

West Windsor, Vt., 1856.

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WHAT TO DO IN A YOUNG ORCHARD.

MR. EDITOR:—I have ten acres of ground nearly new, of a deep warm loam, one-third is level, and the remainder rather steep, descending to the north and north-east. About one-half of it has lately been set to orcharding, and the remainder is destined for that purpose. It is now in mowing, and yields near one ton to the acre; the grass is thin and tall, mostly herds grass, and the whole is full of blackberry bushes; these I wish to exterminate. The land is good for corn, and excellent for potatoes, but it is so situated that I cannot cart manure on it without fording the Deerfield river, which is generally impracticable at planting time, and always difficult. I wish to make a few inquiries.

1. Shall I plow the apple trees and cultivate without cropping? or—

2. Shall I plow and apply some concentrated manure, and if so, what manure? or—

3. Shall I keep it in grass and sow guano or some other stimulant?

Any suggestions will be thankfully received by

Your friend, P. P.

East Charlemont, Feb., 1856.

REMARKS.—Plow as deeply and thoroughly as possible over every part of the land before the trees make much root. It can be done cheaper and better before the trees are set. Such a position is the very one whereon to try specific manures. Do not mix them. Try guano, superphosphate, fish guano, and Gould's muriate. Thorough work as far as you go, will be more profitable than to have the ten acres in hand and work it indifferently. Three or four hundred pounds of either of the first three, or six to ten barrels per acre, of the last, would be a liberal dressing.

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HOW TO KEEP A HORSE.

MR. EDITOR:—I have a valuable horse, and wish to keep him in as good condition as possible, on four quarts of grain daily, and first quality English hay. I wish to know whether it is best to give him all the hay he will eat, or keep him on allowance? Last winter, he was not doing *any* work, to speak of, and had four quarts of grain and all the hay he would eat, (and he did eat enormous quantities) and was thin at that. I am of the opinion that if he did not eat so much hay he would look better; he is perfectly healthy.

A LOVER OF AGRICULTURE.

Uxbridge, March, 1856.

REMARKS.—Men who have large interests in horses, study into the various modes of keeping and raising them, and learn the true way, so that their example becomes valuable. There is not an owner of a livery stable, or of stage or omnibus lines, who feeds his horses more than three times a day. Whatever grain is allowed is mixed with cut hay or other fodder, and fed to them in this form. Carrots often take the place of hay and grain at noon. Great regularity should be observed in feeding. Treated in this manner, a horse will not consume more than one-half the hay he would under the course you have practiced, yet he will keep in better flesh and strength.

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MEASUREMENT OF MILK.

MR. EDITOR:—Four hundred quarts of milk, beer measure, at seven cents per quart, will come to twenty-eight dollars; the same milk in the wine quart, will measure in round numbers, four hundred and eighty-eight quarts, which at six cents per quart, will come to twenty-nine dollars and twenty-eight cents. The milkman that alters his measure from beer to wine, and his price from seven to six cents per quart, gains one dollar and twenty-eight cents on every four hundred quarts of milk, beer measure, sold. J. B.

March 8th, 1856.

For the New England Farmer.

IMPROVED KING PHILIP OR BROWN CORN.

Mr. Editor:—Through the kindness of the Secretary of the Board of Agriculture, I received two years ago, a small bag of this corn for seed; it was planted quite late—the 28th of May—and though the season was very dry, and it suffered from the drought, yet it did very well, and was fully ripe and ready to harvest by the middle of September. I was so much pleased with it, that I planted last year all I could, and though it was planted late again—about the first of June—it was ripe by the 10th or 15th of September. The corn was planted on a dry piece of land, and though it looked splendidly in the early part of the season, yet it suffered severely from the drought, which cut short the crop, and made the corn less sound and firm. From what I have seen of this corn, I consider it a great acquisition, and know of no variety—not excepting even the small Canada—that will ripen so early. It is from a week to ten days earlier than any other I have ever planted. The corn is of a reddish cast, has a large kernel, looks rich and beautiful; the ears are long and handsome where it has a fair chance. I should recommend it to all who plant corn, and want a crop, as it is sure to ripen when other varieties fail. In proof of this, I quote from the Patent Office Report of 1854, where can be found reports from different States, where this corn has been sent and tested.

Gilbert L. Bailey, of Portland, Me., writes:—"Early last spring, I received from the Patent Office a small quantity of what was called 'Improved King Philip or Brown Corn.' I handed it to a friend, Mr. Robert Leighton, of Westbrook. He planted the seed early in June, in a soil composed of a dry sandy loam, hills 3 feet apart, 4 kernels to a hill. The corn was harvested on the 10th of September, and yielded in good full ears at the rate of 120 bushels to the acre. Had it not been for the drought, the yield would probably have been considerably more. Our common kinds of corn did not yield more than half the usual crop. A gentleman living about forty miles in the interior, took 40 kernels of the corn, which he planted after he had begun to hoe his other crop, and in two months and twenty-seven days he gathered 5 pecks of fine full ears from the product."

P. W. Peckham, of Westford, Mass., says:—"Last spring I received a small bag of 'Improved King Philip or Brown Corn,' from the Patent Office. To test this corn by comparison with the kinds that I usually cultivate, I planted it at the same time, the 10th of May, and in the same way; it yielded 208 ears of a large size, although several hills were destroyed by the worms. It eared low, and was harvested twenty days before any of my other corn. I usually plant the Rhode Island White Flint and Yellow Canada corn. The seed of the latter I obtain every fourth year direct from Canada, as it ripens later by planting seed raised here. I have heretofore considered it the earliest variety cultivated. From the above result I think the 'Brown Corn' is well adapted to our soil and climate."

Statement of Ephraim Montague, of Belchertown, Mass.:—"Having received from the Patent Office a sample of 'Improved King Philip or Brown Corn,' I planted it the 1st of June, according to the directions given. There were 72 hills; the land was on a pine plain, light and rather sandy, with some coarse gravel, on which I seldom raise more than 20 or 30 bushels to the acre with the same amount of manure as was applied in the present instance. I harvested the product early in September; and the amount raised, after being well dried, was 25 quarts of corn of good quality, being equal to 62 bushels to the acre. I believe the variety to be a valuable acquisition to this section of the country."

J. E. Waters, of West Millbury, Mass., says:—"On the 25th of May last, I planted a small parcel of 'Improved King Philip or Brown Corn,' received from the Patent Office, following the directions given. It was fit for harvesting twenty days earlier than any other corn in the vicinity, and was very sound and good; the yield was at the rate of 85 bushels to the acre. I think it is far superior to any early variety of corn known among us."

Statement of James Dockeray, of North Cannon, Michigan:—"Last spring, I received from the Patent Office a small package of 'Improved King Philip or Brown Corn.' I planted it about the 1st of June. The amount of ground planted was a square rod; and the product was one bushel of ears, which will undoubtedly furnish half a bushel of shelled corn, or at the rate of 80 bushels to the acre. My other crop of corn did not exceed 15 bushels to the acre."

Statement of E. A. Philips, of Coventry, N. Y.:—"Last spring I planted 78 hills of the 'Improved King Philip or Brown Corn.' The product was 121 quarts of shelled corn, equal to about 90 bushels to the acre. This proves the variety to be well adapted to our northern climate."

Statement of W. M. Mahew, of Marcy, N. Y.:—"I received the 1st of June last, a small package containing about half a pint of 'Brown Corn.' On the 9th of June I planted it, but thought it would never ripen. To my surprise, however, it was fully ripe by the middle of September. The yield was 1½ bushels of shelled corn."

Another writer of Ontario County, N. Y., says: "it is at least two weeks earlier than the common kinds planted here. I believe it to be an excellent variety."

Another says:—"I would recommend its cultivation especially because of its extreme earliness."

I might quote the opinion of many other persons from different States, all speaking in the same high terms of this corn. And from what I have seen, I am willing to substantially endorse all that has been said by the above-named persons. I shall plant no other sort this year. I consider it worthy of trial by every person who raises this important crop. This corn is yet scarce, and is not to be found only at a few of the principal seed stores.

Newton Centre, March 21. J. F. C. H.

Cultivation of the Pine.—We are under a thousand obligations to as many persons, for the kind manner in which they have answered our numerous inquires on various topics. In another column the reader will find an article on *the cultivation of the white pine from the seed*, by S. B. Phinney, Esq., of Barnstable, and Editor of the Barnstable *Patriot*. This history grows out of his own experience. On our visit among the Cape Codders last

summer, we were delighted with the new aspect which they were giving the country, by the cultivation of the pine, as well as by their unaffected hospitality. We hope, yet, to help them drive a school of black whales ashore, and then take a nap in the shade of their beautiful pines!

For the New England Farmer.

KEEPING WINTER APPLES.

"Apples have never kept better than the past winter," is a very common remark. Now we need only to look at the uniform, steady cold of the past season, and we discover one pretty essential condition for preserving fruit.

Apples will not freeze when water will; but a very low temperature will injure the fruit for preservation, when the mercury rises. Perhaps it is best to keep the apple cellar at about thirty-four degrees.

A great many absurd ideas prevail about keeping apples. One man in this town fills his barrels in the fall, and then throws in a pail or two of well water! A good many fill the barrels, and head them tight, and leave them under the trees, on the damp ground, exposed to all the storms. Some head up, and pile the barrels, and cover with a few boards. The apples in these cases are out of sight, but are damaging. Let us see how:

The "sweating" of stones is a familiar spectacle; or of the pitcher of ice water upon the summer dinner-table. The well-known explanation is, that the watery particles—the vapor in the atmosphere—is *condensed* as it comes in contact with a colder body, and falls upon its surface.

Now apples, when cold, act upon the warm air like cold stones, or the iced water pitcher. The apple is covered with a highly varnished surface, as smooth and as impervious to moisture as the glazed water pitcher.

It must be seen that a frequent showering after the fruit has ripened will slowly *dissolve* this beautiful varnish, which Nature has so delicately laid on. If you break through the hard enamel of the tooth, the bony part hastens to decay. If the skin of the apple is injured, in like manner the pulp soon perishes.

I see no reason to believe in the "sweating" of apples, by which is meant, that moisture passes out of them; I think it a mistake. When kept in thick bodies, or, when closely confined, as in barrels, moisture will collect upon them. I have endeavored to show the true cause. The amount of moisture, however, will depend upon the sudden changes of the temperature. It will never be seen, I imagine, where apples are kept at an even temperature.

When apples are packed in barrels, and become damp, as they invariably will, every impurity about the barrel moulders and becomes offensive. Apples rapidly absorb foul odors, and how often the fine, natural flavor is gone, and an earthy, fishworm, or musty and offensive one, substituted.

I had the impression once that apples must be "headed up" ever to see the spring. I have proved, by many years' experience, that some kinds will endure till *Summer*, if left in open barrels or boxes. I prefer bins to hold apples. The apples keep better, and are sorted with more dispatch, to say nothing of less room being required for storing the same quantity.

Apples that are intended for spring sales should be gathered more carefully. They ought *never to be turned from the basket to the barrel.* A little care here will save much future loss.

I have some further thoughts upon this subject, which I defer till a future time.

I wish, Mr. Brown, that you would "call up," as you do so successfully, as President of our Farmers' Club, Mr. SIMON TUTTLE, of Acton, Mass. His large experience in wintering apples entitles him to the *floor*; which, for him, I now cheerfully yield. W. D. B.

Concord, Mass., March 25, 1856.

REMARKS.—Mr. TUTTLE is called for. Will he be kind enough to "let his light shine?"

For the New England Farmer.

HOW TO MAKE GOOD BUTTER.

MR. EDITOR:—Having read several communications in the *Farmer* on making good butter, and not seeing any that comes up to my ideas, I will now give my practice, (or rather, that of my wife,) and some of the causes of not making good butter.

1. Milk should never be set for butter in a dark, damp cellar—as is the case with butter-makers in this section—as the cream is thereby moulded before it has had time to rise, which gives the butter a mouldy taste.

2. The milk is allowed to set too long before being skimmed, which gives it a cheesy taste.

3. The cream is kept too long, before it is churned, after it is skimmed, which gives it the taste of the other two; and also a sour taste.

4. The butter should never be washed in water, because it takes away that beautiful aroma so essential to good butter.

5. It should never be taken in a person's warm hands, as the heat melts a certain portion of the globules, which gives it an oily taste, and makes it become rancid very soon.

6. The milk should be set in good clean tin or earthen pans, in a dry, open, airy and shady place, above ground, if possible, although a cellar may be so built, and ventilated, as to answer the purpose. It should never set over twenty-four hours, in warm weather; and for a dairy of three cows or over, the cream should be churned every morning, and never be kept over forty-eight hours, in warm weather; in cold weather, it may be kept longer. It should always be about the same heat that the milk is when drawn from the cow, and churned steadily, and I have never known it to fail of coming readily; (we use a cylinder churn) it is then taken from the churn with a wooden butter ladle, into a wooden tray, which has been well scalded and cooled in pure cold water; the salt is then worked in, to suit the taste, with the ladle, which is easily done, with a little practice, and the butter-milk well worked out; it is then set away in a cool place for about twenty-four hours, when it is well worked over again, as long as milk or pickle can be worked out. Butter made in this way, and put down in stone pots, and kept from the air, will keep good for a long time. C. S. W.

Kennebunk Depot, March, 1856.

TWELFTH LEGISLATIVE AGRICULTURAL MEETING.

REPORED FOR THE FARMER BY H. E. ROCKWELL.

The *twelfth* meeting of the Legislative Agricultural Society was held in the Hall of the House, Tuesday evening.

Hon. J. W. PROCTOR, of Danvers, was introduced as the Chairman of the meeting, and said :—

GENTLEMEN :—Unexpectedly invited to preside at the discussion of a topic, on which I cannot claim to have any special knowledge—"the horse"—I am happy to know, that arrangements have been made to have a lecture from my friend Mr. HOWARD, of the Boston *Cultivator*, who knows all about it. It is a matter of great interest to the farmer, and the entire community; and although, on the introduction of railroads, it was apprehended, these movements would, in a measure, do away with the necessity for the horse, still experience has shown that the demand for good horses has been constantly increasing, and never were they deemed of more value than at the present moment. I am advised by those experienced in the rearing of horses, that there is no species of stock on the farm that pays better for rearing than *colts*, when proper care is taken to have sires for them of the right character; they will, at the age of three years—properly trained—command remunerating prices. But I forbear to multiply remarks, that will be so much more impressively made, by those of more experience in this class of animals.

Mr. HOWARD, of the *Cultivator*, was then introduced by the chairman, as before announced, to speak upon the subject of "*The Horse.*"—He commenced by saying that the horse is a native of the old Continent *only*. And there, wherever man has risen above the savage state, the horse has been held as a servant. He was possessed by the earliest civilized nations; and from time immemorial, has been propagated in a domestic state, although still found in his original wildness and liberty in the vast wastes of Central Asia. Although the horse, in point of usefulness, cannot claim superiority over some other domestic animals, he has always been regarded with peculiar interest. All the varieties of the horse are included in one species under a zoological arrangement. Yet some varieties are so ancient that their origin cannot be determined. Those of greater bulk are found in temperate climates, and those of a smaller size in elevated, exposed and rough sections of the country. It is difficult to account for the difference between the English draft horse that weighs a ton, and the Shetland pony which weighs scarce 200 lbs.

The conformation of the Arabian horse is such as to combine great speed with great strength, to carry weight upon his back, and he is, on this account, placed at the head of his species. There is evidence that horses have been bred upon the Assyrian plains for thousands of years. Late researches among oriental cities have brought to light sculptured images of horses that may be taken as *fac similes* of the Arabian in the days of Senacherib or Nebuchadnezar. Job's sublime description of the horse would scarcely apply to a less noble animal than the Arabian.

The early colonists brought from different parts of Europe different varieties of horses to this country. From those brought from Spain have sprung the half-wild horses of Mexico and some of the South American countries. In the United States there are but few breeds. We have had, for many years, the English racer. The Germans introduced the heavy draft horse of their father-land, and it is still perpetuated. Some specimens of the Norman horse were introduced into New Jersey, but the stock has not been numerous. In Canada there is a breed somewhat different from the original stock, introduced from France. In the upper provinces are specimens of Scottish, Clydesdale and other breeds.

The horse may be called a machine, and he performs certain actions corresponding to his shape and proportions. Though it may be said that horses of different shape perform the same things, it does not disprove the proposition; for an imperfect engine may be made to run at a high speed by the application of steam. The animal machine is set in motion by what we call nervous energy and force, and a large amount of this force may produce great results, even in a badly formed animal. It may safely be assumed, that, other things being equal, the best horse, in the end, is that having the truest form considered in reference to the kind of action required. The qualities demanded for different kinds of service were then pointed out. For the race horse, the model was something like that of a hare, having the hind parts more elevated than the fore quarters. The celebrated English horse Eclipse is said to be two inches higher at the rump than the fore shoulders. A long back is favorable for a race horse, where a long race is to be run with a light weight; but a shorter back is to be preferred when a weight is to be borne a short distance. For a trotter, oblique shoulders and higher ones are required. Good trotters never have upright shoulders. In general, the highest nervous energy accompanies the firmest and closest texture. The English race horses are derived from the Turkish, Persian, Arabian, Moorish and Spanish stocks, with the blood of a British horse in some instances. There is no variety of horse in Great Britain that has so many different qualities as the so called thorough-bred horse. The term "thorough-bred" is used in England to distinguish the imported or Eastern blood, though the particular kind, whether Arabian or Moorish, is not specified.

The term "blood" as applied to horses is generally without any good foundation. The race horse of England is not any more pure blood than any other kind that distinguishes him; for the draft horse and the pony are more pure. The term is only used to distingnish the racers.

In this country, the nearest approximation to a distinct breed is that of the Morgan stock. That breed has acquired wide-spread notoriety. Some of that stock was taken from Vermont to Canada, and were thence taken to England as cavalry horses, and they were examined and highly praised by the late Duke of Wellington. The origin of that breed cannot be ascertained in every particular. The first one was owned by Justin Morgan, of West Springfield in 1782. He was sold to a man in Randolph, Vt., in 1795.

Mr. Howard related the following narrative to show that the horse owned by Justin Morgan was once owned by Col. James de Lancy, a British officer. He said he ascertained that a horse called "The True Briton" was stolen from Col. De Lancy, and he went to visit at Morrisiana, an aged man, who once lived with Col. De Lancy, by the name of Andrew Corsey. When he visited him he was ninety-five years of age and very deaf. But he learned from him that Col. De Lancy's horse was stolen by a man by the name of Smith, of Hartford, Conn. Smith, after peace was declared, called on Col. De Lancy, who received him with cordiality, and invited him to take breakfast with him. While he was at breakfast, Col. De Lancy went out to the barn and got a rope, and commanded his slaves (slavery existed then in New York) to go into the house and put the rope around the neck of Smith, and hang him, and it was done. The facts thus stated are reliable, and there is reason to suppose that the "True Briton" and the sire of the horse of Justin Morgan were the same.

The first Morgan horse was extensively used as a sire in Vermont, and lived to an advanced age. His progeny were easily distinguished, and those of even the second and third generation retained the points and properties of their progenitor. Only four of his male progeny were kept as sires. Those were Sherman Morgan, Woodbury or Burbank, Chelsea or Bulrush and Revenge. The Vermont Black Hawk was the progeny of Sherman Morgan. On that point there could be no doubt, Mr. H. said, as he had in his possession abundant proof of it.

In England the coach horses are bred in a different way from the racers and roadsters. In order to obtain horses of a peculiar quality, it is necessary constantly to select those for sires which possess most nearly the desired qualities. In closing, he called attention to a fine representation of a young horse, Trotting Childers, painted by an English artist. His remarks occupied half an hour, and were listened to with great interest.

The chairman said it would seem that the best breed of horses came to us by a Yankee trick; but as the theft was atoned for, we have a right to enjoy them. In Essex County the question had been considered of the propriety of encouraging the rearing of fast horses, by trotting exhibitions, and they had come to the conclusion that it was not desirable. There is more interest now than formerly in horses for the market. They usually get $100 for them at three years old. Notwithstanding the great number of railroads in the country, he thought there never was more demand for good horses than now nor more encouragment to raise them.

Mr. BROWN, of Concord, expressed his gratification with the address. Such addresses as take up particular topics and discuss them thoroughly were much needed. There was, as he thought, great need of paying close attention to the breed of stock of any kind, and especially of horses. He believed in the doctrine, "once impregnated always impregnated." But horses need education as much as human beings, and it is true of them as of men, that,

"Just as the twig is bent, the tree's inclined."

The gait of a horse may be fixed by early training, to a great extent, so that if rightly managed it is as well to have a gait of eight miles as one of four per hour. But even with good teaching and good masters, horses will sometimes be bad. Feeding colts on refuse coarse food, which they are compelled to pick up in the barn-yard, is very poor policy; and the same is true with regard to calves.—If horses and cattle are thus cheated of their rights in their younger days, it is unreasonable to expect much from them. He closed with an earnest appeal for humane and kind treatment of horses in the matter of driving and working them, protesting against the practice which is quite common, of overloading and then beating them to make them draw beyond their strength. Every man who thus cruelly treats his horse ought to be severely punished.

Mr. A. G. SHELDON, of Wilmington, said that there ought to be more mercy shown to horses after their best days are past. Every market day, there was time and money enough spent in trotting and trading off old, worn-out horses, at Brighton market, that ought to have been dead for years, to buy a good dairy of cows. He said that he wished to be understood in his remarks last week, to say that after bulls were two years old they ought to be broken to the yoke, and not that they should not be kept any longer. He thought the dairy was the most profitable farm stock. He did not think the Berkshire hogs the best for pork. He liked the Suffolk breed when crossed with others, but believed it would cost as much to raise one full-blood Suffolk pig, as four of a mixed breed.

Mr. W. J. BUCKMINSTER thought it important to inculcate the idea that to make a good farmer,

required a high degree of good judgment and careful observation. He thought horses were much less frequently abused than formerly, in the city of Boston. When we see faithful animals willing to do all they can, it is our duty to interfere in their behalf, when they are abused. There is no necessity for abusing cattle in training them. He deprecated the practice of having the time at cattle shows taken up by exhibitions of fast horses. It was wrong, in his opinion, to encourage the tendency to fast driving, by such exhibitions.

Dr. FISHER, of Fitchburg, spoke of the relative value of mules as farm stock, and especially for work. He purchased a pair last spring that weighed 700 pounds each, and he found that they could be kept very cheaply compared with horses. His horse, which weighs between 1100 and 1200 pounds eats more than both the mules, while they will do nearly double the work that he will. They will work more hours, are less subject to diseases and accidents, need but little grain,—none except when worked hard. He had not found any bad tricks in them, though it is often objected to them that they are apt to be tricky. They will pay for good treatment as well as a horse, and will bear poor treatment much better. They know how to shirk, it is true, and in that respect seem to be more intelligent than the horse. They will draw as much on a drag as a pair of oxen that weigh 2800 pounds. A pair of mules weighing 1400 pounds will do nearly or quite as much work as a pair of horses that weigh 2200 pounds, and they will not eat more than half as much.

Mr. EMERSON, of Boston, added that the life of mules is much longer than that of horses. It is a proverb in Virginia that a mule never dies. Their working life is nearly fifty years. He thought them a better working animal than any other. He also spoke of the comparative profits in keeping different kinds of animals. Fowls require less sustenance, in proportion to the amount of meat they will furnish, than any other animal; and next to them was the sheep. He had found great difficulty in keeping sheep, however, because they were so apt to be unruly.

Mr. R. S. FAY, of Lynn, said sheep might be trained so as to be kept within their proper limits as well as any other animal. His own sheep pastures were enclosed with low walls, and though the feed was often poor, and there were vegetable gardens and much better feed adjoining the pastures, he had never known his sheep to go over the walls. He bought them in New Hampshire and put them on to his farm five years ago, and though they were as wild as any sheep when he purchased them, he had found no trouble in keeping them within their proper bounds, though they were tended only by a boy fourteen years old. They had become perfectly docile, and literally exemplified the Scripture language, "My sheep hear my voice," &c. If sheep are kept under the care of any particular person they will always come at his call. He thought nothing was more important for farmers than to have a certain proportion of his farm stock consist of sheep. There is no manure so fertilizing as that of sheep, and it does not so readily waste by exposure as that of other animals. Sheep are gleaners after other cattle, and will help to keep the cattle pastures in good condition by being turned upon them occasionally to eat the coarser plants which have been left by the cattle. They will enrich the land, too, and may be made exceedingly useful in helping to prepare land for a crop. A German agriculturist has calculated that the droppings from one thousand sheep during a single night would manure an acre sufficiently. By that rule a farmer may determine how long to keep any given number of sheep upon any particular piece of land. Mr. FAY said he was accustomed to fold his sheep upon land that he designed for corn and other crops; and in doing so he shut them upon half an acre at a time, keeping them there by a wire fence, which was easily moved from place to place. He kept his flock of three hundred, five nights upon half an acre, and then removed them to another half acre, and in this way his land was well manured without the labor of shovelling or carting. He thought that the lambs and manure paid for keeping, and the wool was clear profit.

For the New England Farmer.

GRAPES AND SWEET POTATOES.

MR. BROWN:—I noticed in the *N. E. Farmer* for February, on page 97, a paper on the cultivation of grapes, in which you give full information how to prune the vine, &c. Now if in your March number you will point out to us all the kinds of grape vines that are best adapted to our climate, giving directions, first, what kind of grape vine is best to purchase; second, how they ought to be set out; and at what time each kind ripens in your state, I, and many of my neighbors, will give them a fair trial. Three years ago I sent to Boston and got three Isabella vines, and set them; last season they bore thirty-six pounds, and ripened well. I took them off the vines Nov. 11. I have one later vine that bore last season, but the fruit did not ripen. I have two Diana vines, not in bearing; one Concord vine, not in bearing; one Amber, and one Sage. Now as I wish to get more vines in the spring, will you direct me what kinds to purchase, and how old vines it would be best to get, and insert in your March number?

Now one word about the

CAROLINA SWEET POTATOES.

Last spring I got half a peck from Boston, split them lengthwise, made a kind of hot-bed, and there placed the pieces side by side each other. About the last of May or the first of June they were three or four inches high; I then cut the sprouts or slips in very small pieces, and set them out in the same way I do cabbage plants; they grew well, the vines run on the ground two or three yards long, and as

soon as frost came, I went into my garden to dig them. To my surprise, I found not one potato in the form of those I planted; but I found their roots had run one and two feet in length in the earth; the diameter of a few may have been two inches, but the most of them were not over half an inch. Now I presume I did not cultivate them right, and I wish to obtain information from you. I am a *decrepid old man* of 76 years; but if I should live, I want to raise potatoes and grapes.

NICHOLAS THOMAS.

Eden, Hancock Co., Me., Feb., 1856.

CULTIVATION OF THE PINE.

In a recent nnmber of the *New England Farmer* the editor of that paper, Hon. Simon Brown, while answering the inquiries of a correspondent in regard to the cultivation of the Pine, alludes to a thrifty young plantation of this valuable forest tree of our planting, which he noticed during his visit here last season, and asks for some information in regard to our mode of cultivation. We are happy to give the method we pursued in the planting of a tract of about ten acres—if thereby we shall encourage even one individual to attempt a similar enterprise, which, when properly begun and carried out, is sure to return an hundred fold.

In the Spring of 1845, we fenced off half of a tract of about twenty acres of land almost exhausted from its manner of cultivation in many former years:—the half we selected for planting had not been used for grain or other crops for several years, the soil being light, and sandy, and from the high location of the ground, difficult and expensive to cultivate. It was at the time we speak of mostly covered with mosses and whortleberry bushes.—We began its reformation from a brown, bleak, and almost useless pasture, as it then was, to a very thrifty and beautiful plantation of Pines, as it now is,—the admiration of all eyes capable of appreciating "woodland beauties"—by first having shallow furrows plowed to the depth of about five inches, and four feet apart. The hills for the pine seed were then prepared in these furrows in the same manner as for corn, into which three or four seeds were dropped and covered with about a half an inch of soil—the hills were four feet apart. A man and boy planted in this way about four acres a day.

Not more than two-thirds of the seed came up after the first planting, and did not grow over four inches during the first season. The first shoots much resemble those of an onion and are nearly as tender. In the autumn and spring following this first planting, those portions of the ground where the seed had failed to germinate were replanted, and in due time were seen the tender shoots of the Pine, which now covers the entire ground with a dense and thrifty body of trees.

During the first three years, their growth was quite slow, but after that period, they averaged an annual increase of more than a foot in height, and at the present time, many of the trees are twelve feet in height, and the majority will average about nine feet.

Others in this vicinity have been equally successful, by a similar mode of cultivation. Amos Otis, Esq., of Yarmouth, has planted about two hundred acres, and is one of the most experienced cultivators of the Pine in this section of the State. He planted upon land of a light loamy, or sandy soil, which was for the most part exhausted, and of but little value for any other purpose. The experience of our cultivators has shown, that land worn out and too poor to sward over thickly, is best adapted to the growth of the Pitch Pine. The months of March and April are considered the most favorable for planting, although Mr. Otis says he has planted in every month in the year,—the summer months excepted.

Where a small lot of land for experiment is taken, a plow may be run through the land, making parallel furrows about six feet apart, then take a common planting machine, such as is used for planting beets or onions, and run it along in the *bottom of the furrows*, dropping three or four seeds in a hill, abont a foot apart, covering them not more than half an inch deep. If all the seed vegetate, there will be a much greater number of trees than can grow on the land, but they will die out in the course of a few years.

Large tracts of worn out land in Barnstable county, that were worth comparatively nothing, have been planted, within the past fifteen years, with the Pitch Pine. In most cases, these experiments have been very successful.

The seed can be procured by gathering the cones of the Pine in the autumn, and keeping them in a *warm, dry place*, until a leisure season in the winter, when the seeds, which have a small wing attached to each, can be easily rubbed out. When planting by hand it is not necessary to rub off this wing, which must be done, if the seed is dropped by a seed planter.

The growth of wood upon the ten acres we planted in the spring of '45 has been so rapid as greatly to increase its value. The value of the ten acres, at that time, was less than $75,00. Within a few months, $300 has been offered and refused, for the same land.

We know of no way in which the many thousand acres of poor, sandy lands in this State, can be made so valuable, as by planting them with either White or Pitch Pine seed. Such was the favor with which the Barnstable County Agricultural Society viewed the experiment we made in planting the seed of the Pitch Pine, that a liberal premium was awarded therefor in 1853. We trust similar experiments to our own will be made by many others, and with equal success.—*Barnstable Patriot.*

SUBSOILING VS. DRAINING.—There is no doubt but a soil made deep and mellow will resist both drought and deluge better than a thin, hard soil. The reason is obvious. If you have two inches of soil on a board, or in a box, half an hour's rain makes it complete mud, and a half day's sunshine will convert that mud into hard lumps, especially if the soil is clay, or any considerable part clay. But if instead of two inches it is two feet, it will take a long rain to wet it through, and no part of it will be mud, until there is water enough to make it all mud, and then in drying, no part will be very dry until the whole is dry. A deep mellow soil will bear a larger amount of rain without destroying its loose, porous character to such a degree as to exclude the air. So far as we have observed, a piece of dry, gravelly soil, if plowed deeply, will stand a drought better than wet clay soil if plowed shallow, and underlaid by clay or hard pan.—*Culturist and Gazette.*

For the New England Farmer.

THE DOUBLE PLOW.

MR. EDITOR:—I have a piece of high loamy land that I wish to plant with corn the ensuing season. I wish to plow it deeper than it has been in times past, and should like some information about the double plow. I should like to know what proportion harder they draw than No. 2, Eagle. I have never seen one, but if they are an improvement, I should like to try one, if they can be managed in land where there is some fast rocks, but not many small stones.

I have been actively engaged in the cultivation of the soil for more than half a century, and my interest in it increases with my experience. I am satisfied that it is the best employment for all who are calculated to follow it.

Making money should not be the sole object of the farmer; utility should have some weight with him. If he can take one acre of unproductive land, and make it produce fifty dollars worth of the necessaries of life, he has done much towards supplying the real wants of the race. Another has dug five hundred dollars worth of gold in the mines of California; he has done nothing towards supplying the real wants of life, but has been living upon the products of the farmer all the time.

THOMAS HASKELL.

Gloucester, March, 1856.

REMARKS.—It is said by good judges who have used the double plow, that it requires no more team to plow ten inches deep with the double plow, than to do it with a single mould-board. Indeed, they say it does not require so much team; and from the experience we have had—and we have used the double plow considerably—we are inclined to agree with them. The double plow does the work better, because it separates the sod or turf from the lower part of the furrow, and lays it all snug on the bottom of the preceding furrow. When plowed well in this way, the field presents a mellow seed bed, which may be wrought without disturbing a single turf.

For the New England Farmer.

PASTURES ABOUT THE MONADNOCK.

MR. BROWN:—In your last, I noticed a communication over the signature of "Jonas Wilde," calling in question my statement respecting the pastures in N. H. If in error, I certainly wish to be corrected. If I have been deceived, and what *appeared* to me poor grass, spreading over whole townships, and converting, what was once fertile, fattening pastures, into "old fields," if this was an optical illusion,—if the many intelligent farmers with whom I conversed, and who made special mention of this evil, if they were mistaken, and the pastures are still "as good as new," it will certainly afford me pleasure to stand corrected.

"If New Hampshire," says Mr. Wilde, "makes less butter and cheese than she did formerly, it is, no doubt, owing to the increasing manufactures." Now if increasing manufactures have a tendency to kill out the grass upon the hills, and thus diminish the quantity of butter and cheese, the matter ought to be looked into.

The opinion extensively prevails, that manufactures and agriculture are twin sisters; that they assist, and are mutually dependent upon each other; that together with commerce, they constitute a trio, which is indispensable to a full development of the human faculties, and the highest possible degree of perfection in civilized life.

The legitimate effect of manufactures is to improve agriculture. This it does in various ways; but especially by creating a home market, and giving to the products of the farm, and the farm itself, an increased market value. And when farmers, as is sometimes the case, manifest a disposition to quarrel with manufactures, they are, unconsciously, perhaps, but not less truly, laboring to bite off their own noses.

That the evil of which I made mention, does exist, and that, too, in the region round about Monadnock, and in many other parts of the State, and in Massachusetts, is a truth so obvious, that he who runs or walks through any of those regions, in the months of August, September or October, may read and understand. R. B. H.

For the New England Farmer.

LINES.

BY H. D. WHITE.

Written on the margin of an engraving entitled—"THE FARMER'S WINTER HEARTH."

O! if there be one spot on earth
Where cloudless bliss and joy have birth,—
Where blighting sorrows seldom come,
And envy's bitter tongue is dumb—
That spot of quiet, peace and mirth
Is found beside the "FARMER'S HEARTH."

Thrice blessed spot! where friendship's light
In many a lovely eye is bright—
Where hearts and hands to kindness given
Prepare an antepast of HEAVEN,
And consecrate a "humble cot"
With that which kings in vain have sought.

Windham, Me., 1856.

For the New England Farmer.

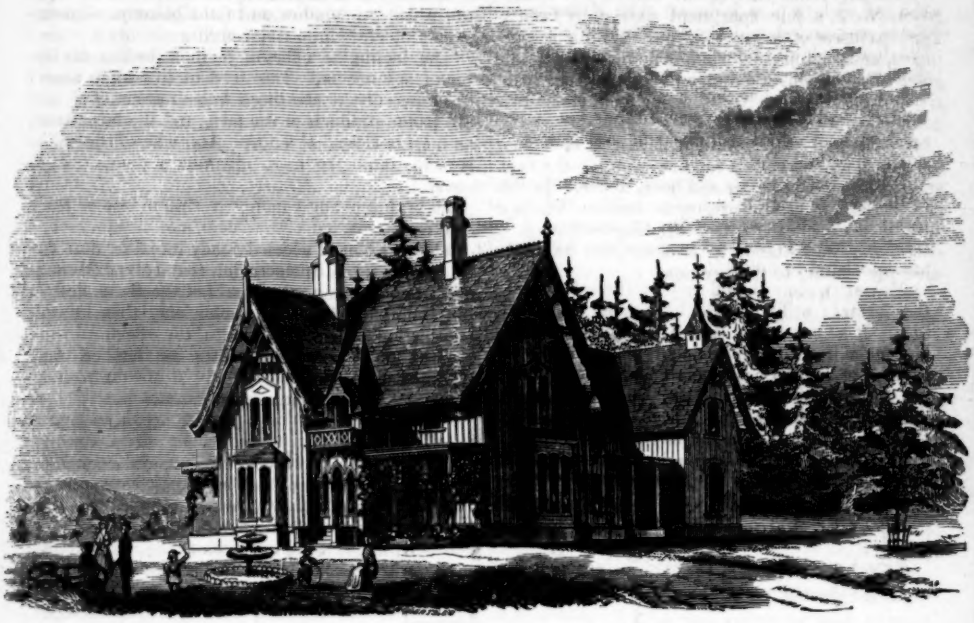
MR. HUNTINGTON'S COW.

This afternoon (March 24th,) in company with a friend, a good judge of cows, I travelled a mile, to see this animal. We found her all she had been reputed to be, and more. My friend thought her the finest looking animal of the kind he had ever seen. She is now seven years old, of a uniform chestnut red color, considerably above the medium size, with all the points of a superior milker fully developed. She is expected to calve this next month, but still yields a fair quantity of milk. It will be remembered that she yielded two pounds of butter per day, the last season.

Mr. Osborn has a heifer from her, now thirty months old, expected to calve soon, a perfect likeness of the original. I speak of these animals for the information of those who are curious to look at animals worth seeing, and challenge the production of their superiors.

The Guenon sign is fully developed, both in the mother and her offspring. This animal is larger than was the celebrated Oakes cow, but in all other respects quite her equal. She is worthy to be seen —the owner is not inclined to part with her.

South Danvers, March 24. P.



AN ORNAMENTED COTTAGE.

In our January number we gave the engraving of a cottage, with its surroundings, but rather as an example of good taste, in its external appearances, because we had no means of showing its internal arrangements, or its cost. We spoke at the time of the influences of *our childhood's Home* upon the heart and character in after life, and ventured the opinion that they may be greatly affected by *The House we live in*, while we are young, and the mind easily and rapidly receives impressions. It would be pleasant to continue these thoughts a little farther, but on glancing at the plan which we now present to the reader, we find that to give a fair understanding of the matter, the accompanying description will occupy all the space we can afford for the present on this topic.

This house is intended for a large family who have few calls to the city for business, and may be so contrived as to render an occasional winter residence pleasant and agreeable. It would differ from a country home in its more free expression of architectural style, and upon the plan of its apartments being rather adapted to pleasure occupancy than to constant family use.

The beauty of simple form, honestly used, is the highest charm a building can possess; and the graceful blending of outlines formed by the adaptation of a somewhat irregularly shaped edifice, to the ground upon which it stands, will result in a picturesque object more truly beautiful than whimsical planning and ornament can effect.

The situation for which this building was contrived was one of the many bold and beautiful ones overlooking the rich valleys of the Housatonic, in Berkshire County, Massachusetts. The view was of great extent, and had an air of quiet repose, fitly in character with the feelings that would tempt the construction there of a summer abiding spot.

The plan is arranged thus. In front, a few steps, protected by an overhanging balcony to the window above, lead to the hall door, which opens into a vestibule, No. 1, on either side of which are hall closets with sash doors towards the inner hall, and narrow windows upon the exterior.

Within this is the inner hall, No. 2, and in it the principal staircase. This hall is ten feet in width, and, exclusive of the entry and closets, twenty-eight feet in length.

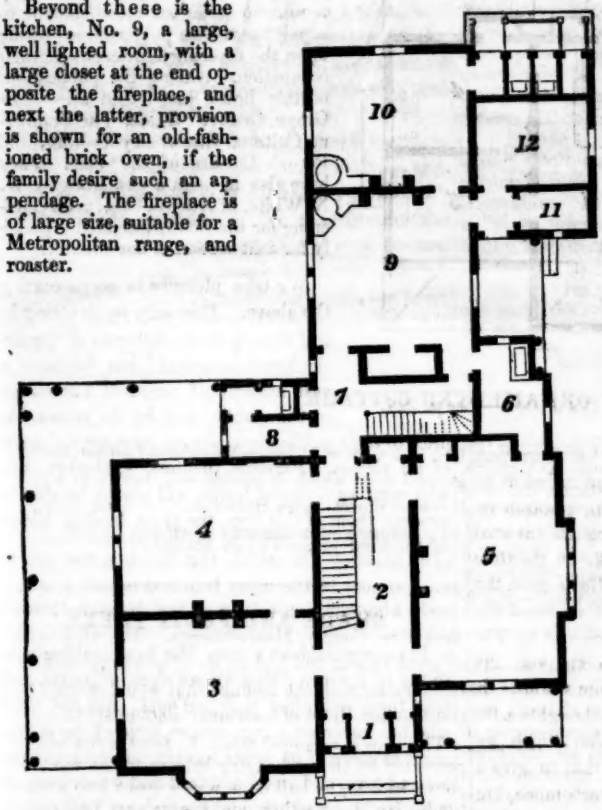
Connecting with it upon one side is a drawing-room, No. 3, with a projecting window in front, and a double window opening on to the side veranda; its dimensions, exclusive of bay-window, are twenty-two by sixteen. In the rear of this is the library, No. 4, the same size as the drawing-room, with the exception of the space inclosed by the projecting window. In this room are double windows to the veranda at the end, and one at the side, correspond-

ing to which is a recess in the wall for a mirror, the finish around which should be the same as that to the window, and the symmetry of the room will thus be preserved.

Upon the other side of the hall is the dining-room, No. 5, a fine apartment sixteen by twenty-four, exclusive of a recess at one end for a side-board, and a projecting window upon the side. The room also contains a closet, and attached is a pantry or waiters' room, No. 6, with a sink, and a door connecting with the kitchen.

At the end of the principal hall a sash door leads into an entry, No. 7, from which is the back staircase to cellars below and floors above. In this is a closet for fishing apparatus, baskets, &c., and from it a door leads into a dressing-room, No. 8, containing wash-stand, water-closet, and an outer doorway leading to the veranda.

Beyond these is the kitchen, No. 9, a large, well lighted room, with a large closet at the end opposite the fireplace, and next the latter, provision is shown for an old-fashioned brick oven, if the family desire such an appendage. The fireplace is of large size, suitable for a Metropolitan range, and roaster.



ORNAMENTED COTTAGE—PRINCIPAL FLOOR.

In the rear of the kitchen is the laundry, No. 10, with a boiler inserted near the fireplace, and from this a door leads into an entry connected with a platform conducting to the outer yard, and, as shown by the plan, two water-closets, and a tool-house, are inclosed within this portion of the building. The remaining portions of the plan are No. 11, a larder, and 12, a small wood-house for the storage of fuel for immediate use. A side veranda shelters a rear entrance to a hall leading to the kitchen, &c., by the side of the larder, and examination will show that every comfort and convenience has been secured, in the arrangement of the plan of this floor. The height of the rooms in the main part of the house is eleven feet, and that of those in the kitchen wing, nine feet six inches.

The chamber plan shows a large hall, No. 1, at the end of which an arch opens into a lower bay, from which is a window on to the balcony. From the side of the hall a similar arch leads into a vestibule conducting to a chamber, No. 2, by the side of which is a large hall closet, and in the room itself one of ampler size and fitted with drawers.

In front of this is a chamber No. 3, and at its side a large closet. Upon the other side of the hall, above the dining-room, are chambers 4 and 5 with closets.

The wing building contains a bathing-room, No. 6, which is provided with a door into chamber No. 2, so that in case of necessity they could be used in connection. The entry, No. 7, has in it a house-maid's closet and sink, and under the stairs which lead to the space in the roof above the ceilings, in the principal body of the house, is a large linen closet.

Nos. 8 and 9 are large bedrooms, each one provided with a fireplace and closets, and 10 and 11 are sleeping-rooms of smaller size.

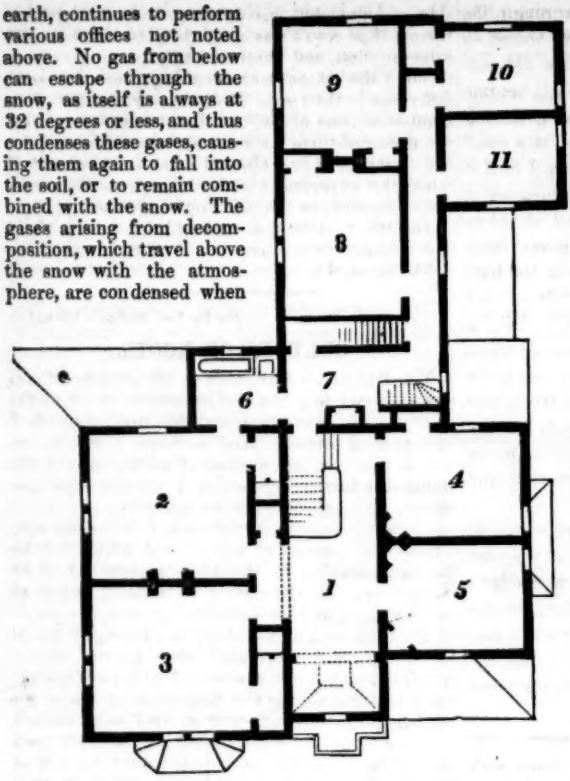
In the front part of the house the high pitch of the roof affords an opportunity of partitioning-off, if wished, three good sleeping-rooms for servants, though independently of the increased accommodation thus capable of being made, the plan shows that a liberal amount of room is laid out upon this floor.

The cost of this building, finished fully, including a large furnace to render the house comfortable in case of winter occupancy, plumbing and painting, would depend upon situation; in the instance for which the design was made, the contract, comprehending all these, was about six thousand dollars, but a very careful finish was insisted upon, and the house contains all the appendages found in a suburban villa.

We have given above, so much of the description as will give an idea of the internal arrangements of the house only, leaving much that ought to be carefully studied by the persons proposing to build. The cuts, and mainly the descriptions, are from an excellent work entitled *Homes for the People*, by GERVASE WHEELER, architect, N. Y. city, which we earnestly recommend to all disposed to adopt the plan which we now present.

BENEFITS OF SNOW.—Snow, from the porous condition of its particles, receives from the atmosphere while falling through it, all gases before held in suspension, and after it reaches the surface of the

earth, continues to perform various offices not noted above. No gas from below can escape through the snow, as itself is always at 32 degrees or less, and thus condenses these gases, causing them again to fall into the soil, or to remain combined with the snow. The gases arising from decomposition, which travel above the snow with the atmosphere, are condensed when in contact with it, and are continually passing in this condensed condition through the snow. As a mulch, snow is better than any other substance, and is of material benefit. It is a mistake to suppose that rains cleanse the atmosphere as thoroughly as snow. Many instances are given by Liebig and others, of snow having the smell of urine and other fecal matters so strongly, as to be easily recognized.—*Working Farmer.*



ORNAMENTED COTTAGE—CHAMBER FLOOR.—*See p.* 224.

A FRENCH PUFF, TRANSLATED GRATIS.—The greatest clothing establishment in the world is that of M. Godillot, in Paris. It employs sixty-six sewing machines, kept in motion by a steam-engine of nine horse power, and which sewed all the overcoats for the Crimean army. The superintendent of the establishment is the Emperor's tailor, Dussantoy, who has invented a cutting-machine capable of cutting out fifteen suits at once, almost with the rapidity of lightning. Besides the machines, one thousand women and girls are constantly engaged at sewing.

AGRICULTURAL PUBLISHERS.—The literary correspondent of the Boston *Traveller*, referring to the publishing house of C. M. Saxton & Co., of New York, says:—

It is an item worthy of note that New York contains the *only* publishing house in the United States, indeed in the world, which devotes itself *exclusively* to the publication of agricultural works. This house is that of C. M. Saxton & Co., which has not long since moved into commodious rooms at No. 140 Fulton Street, near Broadway. Here they keep a complete assortment of agricultural works, and a reading-room supplied with all the agricultural and horticultural journals of Europe and America. Their list of publications comprises nearly one hundred different works, embracing the whole range of farming, gardening, planting, &c., &c. Mr. Saxton founded the house some nine years since, and for seven years has confined himself directly to the speciality we have referred to. It argues well for the intelligence of the agriculturists of this country that they require so large an establishment to supply them with publications bearing upon the diversified interests of their occupation. Among the publications of this house just issued are — The Grape Grower's Guide, The Cranberry Culture, Strawberry Culture, and Peroz's Culture of the Vine. They have also in press a new work by W. N. White, of Athens, Geo., upon Gardening for the South, intended especially for that section of our country.

We take pleasure in corroborating the above. This firm, by devoting itself directly to the interests of the agricultural community, has furnished a vast amount of practical knowledge to the public, and by the reasonable price of their publications, placed them within reach of all classes. Farmers, planters, gardeners, &c., who want agricultural books, will always be able to procure them of this firm, the great leading house of the kind in the United States.

SHADE AND FRUIT TREES.

Let every *child* set a tree. We have nothing now to say to the men; *they* will set trees, of course, and tend them well after they are set! But the *child* who has never set a tree, knows little of the enjoyment in store, if he or *she* has not one tree to care for and love, and water and feed and watch over, as it bursts into new life and beauty and promise at each returning spring. He who has practiced it, will know the sweetness of the enjoyment, and when the tree has gained stature and strength and sent out its broad and leafy branches to shut out the noon-day sun, how gratefully will he listen to the songs of birds that nestle and feed their young about him. And for this kind provision of a home, *they* shall teach him lessons of wisdom and trust, or beguile his hours of labor with their cheerful notes, or protect his crops from enemies so minute as to escape his own observation.

Parents should encourage each child to plant a

tree. It will be an object of interest through life, be often remembered, or spoken of or visited.—Children will gather around it and relate old incidents of the homestead, and not only will it become the centre of clustering affections, but of gathering hearts themselves. "My father planted this elm," said a gentleman to a happy group, "when I held it in place at the age of five years; I remember it well. See how its branches extend, and shield us from the burning rays; more than a dozen families people its sheltering top, whose social and happy lives are perpetual lessons of confidence and love. My children ever read them with delight, and daily bless the memory of their grand-parent, who planted this tree. In imitation of his noble example, they, too, have planted *their* trees, and these groups about us, lifting their heads to the skies, or reaching away into the air, are so many good genii around our dwelling, protecting and adorning and influencing all."

Now, is the time to decide what and where to plant. Shall it be one of the varieties of the elm, prim, and all its length of a size, like a maiden's dress in days gone by? or the vase-form, or the weeping elm? Will you select the red or white maple, the stately ash, the rough, but noble oak, the pendent willow, the wide-spreading beech, the horse chestnut, black walnut or some evergreen?

Our New England Flora is unsurpassed; the nurseries, and the woods and pastures, abound with beautiful specimens of most of our varieties. What child in the country will feel that its whole duty is discharged, who *has not* PLANTED A TREE!

For the New England Farmer.

EXPERIMENTS WITH POTATOES.

MR. EDITOR:—I wish to give you the results of some experiments that I have tried in planting potatoes. I planted five rows, eight hills in a row; one row was large potatoes cut, two halves in a hill, yielding 44 lbs. 2 oz.; one row large, two quarters in a hill, 39 lbs. 2 oz.; one row small, two halves in a hill, 31 lbs. 2 oz.; one row small, whole, two in a hill, 30 lbs. 10 oz.; one row large, whole, one in a hill, 27 lbs. 2 oz. By this trial you will see that the large whole potatoes, with one in a hill, gave the lightest yield, and the two large halves in a hill, the heaviest; and that the two small halves gave a little better yield than the two whole ones. I think, as far as this experiment goes, it gives the preference to cut potatoes for seed.

I wish to say something more about potatoes, for the benefit of any one that raises them. The information that I wish to impart, I obtained in reading a communication published in your paper some time last spring, signed by an old English farmer. I followed his advice by cutting my potatoes and dipping them immediately in plaster, and planting them with the plaster side up, handling them lightly, to keep from knocking off the plaster. I planted a piece of land containing some four rods short of a fourth of an acre; the land was in a neighbor's field, and he planted potatoes the same day, each side of mine, but his potatoes had no plaster on them. The result was that the plastered potatoes came up first, and continued to gain on the others through the season, and when dug there was some difference in the yield. My neighbor dug the same number of rows of his, that I had in my piece, and we measured them to ascertain the difference; he had thirty-eight bushels, and I had seventy-two! I think the experiment needs no comment; and I think, likewise, as the old English farmer did, that if you try it once, that you will never plant potatoes without the plaster. A SUBSCRIBER.

Shelburne, Vt.

For the New England Farmer.

CULTURE OF ROOTS.

MR. BROWN:—Agreeably to my promise, I will now endeavor to give a concise account of my method of raising root crops, and the uses to which I have applied them. And perhaps it may be as well to give you my manner of sowing and cultivating the turnip crop, which I adopted the last season, although I have for many years raised a considerable amount of that crop, for a farmer with a moderate quantity of arable land, which will be the case, usually, in the hilly regions of New Hampshire. In the spring of 1855, I manured well one acre and five-eighths of ground, and planted the same with corn; at my last hoeing, I sowed my turnip seed broad-cast, after having plowed lightly between my corn rows. The time of sowing was some time during the first week in July. In the fall I harvested from that field one hundred and nine bushels of the soundest corn which I have seen for many years; and quite late, just before the ground froze, I gathered in my turnip crop from the one and five-eighths acres, which measured, as I stored them away in cellar, two hundred and twenty-six bushels. I had also, two cartloads of extra pumpkins on the same land. I had another small spot of ground measuring seventy-one square rods, which I sowed to wheat; that I harvested some time in the fore part of August, which when threshed, measured ten bushels of good wheat. Immediately after the wheat was cut I turned under the stubble, and after smoothing the ground, I mixed turnip seed with my grass seed, and sowed broadcast. I sowed this small field on the 15th of August. I gave this piece of land a sprinkling of ashes at the time of sowing my last seed, and harvested from it seventy-four bushels of turnips, of the best quality that I ever saw, and they have been so considered by others who have used them for table use. My kind of turnip is the flat English. The principal use which I have made of my turnip crop, has been feed for my cattle; I think much of the crop for that purpose. I consider it a great saving of fodder, and I have had some very fine stock which I have exhibited in various fairs, and nearly all the extra keeping of the same has been turnips, which I cut with a root cutter. The grass seed sown with the turnips came up very even, and was, when small, just shaded enough to preserve the roots in a vigorous state, and when I last saw the grass before the snow fell, I thought it looked the best, and bid the fairest for a good crop the next season, of any which I ever have had. I think land seeded in this way, far better than to stock down in the spring with oats, which I find a very exhausting crop.

In the season of 1854, I found, toward the last of June, that I had a small portion of mowing land, which was so bound out, that there was no promise of a crop of hay; not even to be worth mowing. I plowed up ninety-two square rods of this land, and spread on it twelve loads of compost manure, about the 12th day of July. On the 25th day of July, "*wet or dry*," I sowed my turnip seed; and harvested from that field three hundred bushels of turnips. I mixed my grass seed with the turnip seed as above stated. Last haying season, I cut the finest crop of herds grass, on the same land which I have ever had from any other method of stocking down. The quantity of turnip seed sown by me is at the rate of one pound to an acre. I have now gone into a greater length than I intended; but it is at your election to use as much of the above as you may think proper, and in such a manner as you may please. JOSIAH BENNETT.

Westmoreland, N. H., 1856.

REMARKS.—Mr. Bennett presented some very large and fine cattle at the national exhibition last fall, and imputed their superiority mainly to their being fed upon roots. We are glad he has given his testimony in favor of roots as profitable feed for neat stock.

CATAWISSA RASPBERRY.

The Catawissa Raspberry is a native variety, entirely, grown and sold by Joshua Pierce, at Linnean Hill Nursery, near Washington, D. C., and entirely new and distinct in its characteristics in respect to the manner of bearing, and the periods of maturing its fruit, which promise to render it an object of general cultivation. From its appearance and mode of growth, I have no doubt but it is a seedling produced from the common wild black raspberry of the country, which grows in great abundance about the regions where it originated; nor can I lean that any other varieties, native or foreign, wild or cultivated, ever grew near the original plant, except, perhaps, the Thimble Berry, (*Rubus purpurea, or odorata,*) which from the dissimilarity of the two, I do not suppose had anything to do with its production.

This bountiful gift of nature originated in the grave-yard of the little Quaker meeting-house, in the village of Catawissa, Columbia county, Penn., situated near the confluence of a stream of the same name with that noble river, the Susquehanna. The history of its discovery is smply as follows: The person who had the care of the meeting-house, from whose own lips I received the account, was in the habit of mowing the grass in the grave-yard, several times in the course of the year; and on one occasion, some eight or ten years since, observing that a brier, which he had often clipped with his scythe, showed symptoms of bearing fruit out of the ordinary season. For this time he spared the plant, bestowing upon it watchful care, and afterwards removed it to his garden.

The fruit is of medium size, inferior to many of the new, popular varieties, but is sufficiently large for all economical purposes. Its color is dark-reddish purple, when ripe, and is of a very high flavor. It bears most abundantly throughout the season after the young wood on which it produces its best fruit attains a height of four or five feet, usually beginning to ripen early in August, but sometimes sooner. The fruit is produced on branches continually pushing out from all parts, successively appearing in its various stages of growth, from the blossom to perfect maturity; and often there may be counted more than fifty fruits on a single branch. As the fruit on each branch successively ripens, the later ones diminish in size, but there is no suspension of its fruiting until checked by frost. If protected in-doors, it undoubtedly would produce fruit during the winter months.

The Catawissa Raspberry is offered to the fruit-growers as a grand desideratum which should be in the possession of every one who has the means of cultivating even half a dozen plants. It is not expected that it will compete with many other sorts, as a general crop at the ordinary season of raspberries; its time of ripening and its great productiveness are the qualities for which it is particularly recommended; producing its fruit on the young growth of each year, it is in its fall crop entirely exempt from the effects of spring frost, so often destructive to many of our fall fruits, in which case, it offers a valuable substitute for such as may fail, both as a desert at hand for present use, and various economical uses as a preserve for winter.

In its cultivation, deep plowing, or trenching the ground before planting, will be found advantageous. It should be planted in rows six feet apart, and at least four feet in the rows. The plow and cultivator should be freely used to keep the ground loose, and to keep down weeds or grass. The bushes may then be tied up to stakes or trellises, as with grape vines; and as it is desirable to a *good fall crop*, the old stalks should be cut away in winter or spring, to promote the rapid growth of the young wood.

U. S. AGRICULTURAL SOCIETY.

We have the Journal of this Society for the year 1855, before us, and it is more valuable than any that has preceded it, in every respect—in spirit, matter, and typographical and artistic execution. It is illustrated, first, by one of the most graphic, life-like, and beautiful lithographs of the grounds and structures, with all their animated beings, that we have ever seen. The view includes some of the surrounding buildings of the city, a portion of the shipping in the harbor, the rich foliage of the trees and the adjacent hills. Then comes the address of the President at the annual meeting in Feb. 28, at Washington, giving a rapid, yet clear history of the transactions of the Society, for the year, with appropriate reflections on the present condition of American agriculture. The business of the annual meeting is then given, such as choice of officers, &c., and then follows, a history of the *Third Exhibition of the Society*, held at Boston, in October last. This is illustrated with elegant specimens of the Short Horn and Jersey breeds of cattle, of Southdown sheep, and the Essex, Berkshire and Suffolk swine.

The account of the Banquet, containing the Invocation, Thanks, President WILDER's Address, and speeches and sentiments, would make an interest-

ing and instructive volume, in itself. The Journal, (as well as the transactions which it records) is a credit to the genius and perseverance which devised and executed the whole, and is a crowning glory to the operations of the year.

We are glad to see institutions of all sorts, even of the most primary character, established to promote the interests of the Farm. The village farmers' club is unquestionably the true starting point,—and like the fishery for those who are to stand on the quarter-deck,—qualifies those who are to conduct others into more difficult and important regions of the Art. These men will be active and efficient in the County Societies, and will become those who are to act with wisdom and foresight, in an Association which recognizes the interests of the Nation.

The next exhibition of the U. S. Society is to be held in Philadelphia in October next, and the same untiring energy which carried the last exhibition to such brilliant results, will be infused into the next. But the responsibilities of such an enterprise are more than should be demanded of one person—the Vice President of each State (as well as all committees) should stand ready to co-operate with the President, and second his efforts in every possible way. The experience, the zeal and indomitable energy of Col. WILDER, as the controlling head, will accomplish much, but that will not exonerate others from the discharge of a fair share of the labor to be employed.

For the New England Farmer.

HORSES AT CATTLE SHOWS.

MR. EDITOR:—I read with much interest your valuable paper, and have been a subscriber for a long time, and look forward with much pleasure to the close of each week which brings to my door a new number; and as you remark after the article signed "Middlesex," on "Horse-racing at Cattle Shows," "that there is a diversity of opinion on the subject," and also expressed your willingness to yield room for discussion on the matter, I have written, not to take issue against my friend from Newton Centre, for I agree with him in part, but to offer my little mite to the many valuable articles in your columns, hoping it may interest some of your readers. Although there may be truth in the remarks of my friend, I cannot see why the strength, the power and the speed of horses may not, with propriety, as well be tried at our agricultural fairs, as the products of the farm in other particulars. I cannot see the objection to exhibiting, or the driving of horses at our fairs. We must have speed and strength in the animals on the farm to make them useful. Why not? As the age progresses, man progresses; the farmer desires a stronger and better team of horses,—he wants, or ought to want, a horse of all work,—one that will carry his load to mill or to church and not stumble by the way-side; he also wishes, or ought to wish for an animal which will carry him to market before market hours are over, or to the village sanctuary before the benediction is pronounced, and if they be but four or five miles distant, he ought to be carried there in a shorter space of time than three or four hours, and to do this, my friend must give up in a measure his antiquated ideas, and join in a degree the young America school, (I do not mean politically speaking.)

How is this to be done? Must we pay the same and no more attention than our fathers and grandfathers did to their stock? raise the same breed of cows, hogs and horses as they did? Or shall we improve our stock? Shall we, because they thought that $100 for a horse was a large figure, be satisfied? Surely not. Now, Mr. Editor, I do not see why a spirit of emulation ought not to exist, just as well among the breeders of horses, as in the raisers of butter or hogs. Can we not have the horse, the noble horse, represented at our fairs? Who wants, unless it be the sluggard, a slow horse, either for the plow, the harrow or the carriage? There are men, and those of high respectability, among us, who have been at great expense to introduce a breed of horses that shall excel in their various callings. They have presented at our fairs the draft horse, the strong, powerfully framed animal, capable of much labor, he is certainly useful, in his way; his strength and his good qualities have been shown at our exhibitions, and why cannot the roadster have his place? surely his duties ought not to be overlooked. We ought and must have, to meet the demand of a certain and by no means a disreputable class of men, the horse of speed and bottom, style him what you may, a fast horse, or the horse of endurance, and how can his qualities be tested, (any better than my friend's butter,) unless it be at public fairs? If one has a horse, such an one as is called by a friend of mine, and a good agriculturist, "the gentleman's powerful roadster, that can go his thirteen miles within the hour," we are at once asked by the buyer, and the very first question in such sales invariably is, "How fast is he?"

Now, I say, we must have such horses, and I cannot see why my friend from Newton cannot allow us, who love the horse as dearly as he loves his hogs, to have a place for our horses at the fairs. I am sure that the greatest and most beautiful attraction, and the one that drew and interested by far the most people of all sexes, all professions and trades, was the magnificent display of horses at the late United States Agricultural Fair at Boston. I will venture to say that where any other part of the exhibition was amusing to ten persons, the lovers of the horse were ten times that number. I for one, am anxious to have everything relative to the farm, be it in the way of horses or of butter, well and properly represented, each and all in their respective places, and have the privilege granted to all to follow their own inclination in visiting every part of the exhibition, and not be confined to any particular branch. I will agree to furnish one hundred persons that would pay their half-dollar to visit an exhibition of horses, where my friend from Newton Centre would obtain ten at 12½ cents each, to visit his dairy, (not to speak disparagingly.) I have written these rough ideas as they have suggested themselves to me, and trust my friend would not desire me so cruel a wish that I might be deprived of his nice tasting and without doubt elegant looking butter, just because I am so fond of that beautiful animal, the horse.

ESSEX.

☞ Tart words make no friends: a spoonful of honey will catch more flies than a gallon of vinegar.

EXTRACTS AND REPLIES.

SUNFLOWER SEEDS FOR OIL.

Will it be convenient in some future number of your paper to give information as to the best manner of getting the oil from the sunflower in a pure state, that it may supply the place of our bad whale oil for lamps? I understand, from what I have read respecting this plant, the oil is equal to the best Florence or olive oil, and yields, some say 50, some 70 gallons per acre; while the stalks afford good fuel.

This plant has been much neglected, but I am persuaded it is worthy of culture, especially at this time, as we can hardly hope to see the best sperm oil come into common use again. We do not think either, how much fertilizing ashes might be had, if the stalks of this plant were used so freely as they might be, if we were accustomed to grow it.

Yours, respectfully, G. P. S.

Byfield, 1856.

REMARKS.—An acre of sunflowers, one foot apart each way, will contain 45,560 plants. We find it stated that an average product would be fifty bushels of the seed and fifty gallons of oil. The oil is said to be excellent for table use, for burning in lamps, and for making soaps. The refuse of the seeds after the oil has been expressed, will produce 1500 lbs., and the stalks when burnt for alkali, will give ten per cent. of potash. It would require a powerful press to extract the oil, but such an one would soon be found.

—

STUMP MACHINE—LIQUID MANURE.

MR. EDITOR:—I once saw a description of a stump machine that pulled the stump by a screw, and cost only twenty or twenty-five dollars. Can you tell me anything in regard to such a machine. (*a.*) Would you recommend farmers to adopt the plan of using liquid manure as recommended by "T. C., in *Farmer* Feb. 23? As this matter is quite new here, I wish more light in regard to it. With what should the tank be filled after the liquid is drawn off, and how often should the liquid be applied to the soil? Should the tank be built entirely under ground, or only level with the ground so as to be easily opened? Can they be made *water-tight* in the manner described by T. C.? S. G. BUTLER.

Essex, Vt., 1856.

REMARKS.—The farmer must be governed in his operations by the same laws which govern the manufacturer, the merchant, or commercial man; by the circumstances with which he is surrounded and the capital which he can control. If a proper investment in the farm, or implements and stock, absorbs all his capital, we certainly should not advise him to risk a large outlay in the fixtures and conveniences for liquid manuring, unless he possesses a remarkably enterprising spirit, and means to give farming his entire attention. We are far from believing in Dr. Beecher's theory, that the farmer should *never* incur a debt.

But there is a way to begin the good work, which is open to all.

In a convenient spot, near the buildings, make a cistern in the ground, four feet wide, six feet long and eight feet deep, in the clear; stone, or brick it if perferred, though on firm earth it will answer all purposes cemented directly on the ground itself. A good way is to begin by laying a wall *on the surface of the ground*, eight to twelve inches high on each side of the tank, leaving the precise demensions desired. Let the stones have a face inside, and level the top to receive the plank which is to cover it. Cement the joints of the wall, and then turf over the outside. Then excavate the inside, being careful not to disturb the wall. Into this cistern, conduct the sink water, and over it set the privy; in the other end set a stout pump stock, and the cistern is complete. It would also be well to conduct the water from the roofs of the house into it at will.—The cistern would be stronger if made round, instead of square or oblong. The pump should be made of inch boards, and about six inches square.

Here, then, is a receptacle for all sorts of cast-off stuff; nothing of a perishable nature can hardly come amiss. During a portion of the year liquid contents may be applied directly to the fields, by the aid of a cask mounted on wheels. Then, as an adjunct, there should always be a hollow square of meadow muck close by to receive the contents of the cistern when it is too thick to be pumped out, or when it is not convenient to distribute it on the fields, or in the winter.

If the odor should not be so much like that from a bed of mignionette as you would like, dissolve a few pounds of copperas in plenty of water and stir that in with it, when you will be able to proceed pleasantly.

—

RED CEDAR SEED.

Can you tell me where I can procure the Red Cedar seeds, and the amount it requires to sow fifty rods? When will be the best time to sow it, and how? How much will it cost?

I was led to inquire by seeing an account in your paper a few weeks ago, by Mr. Sheldon. He says it will make a good fence. A SUBSCRIBER.

Manchester, N. H., 1856.

REMARKS.—We have not the information desired. Will Mr. Sheldon, or some other person, impart it?

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HOW TO MAKE NICE BUTTER.

MR. EDITOR:—Being a farmer's wife, and a constant reader of your paper, I take this opportunity of making a few remarks on the art of butter-making, during the winter season in particular.

In the first place, my milk is put into six quart pans, about two quarts in each pan. These are placed in my pantry, on shelves about twelve inches wide, leaving an open space through the shelves of four inches. There it is kept at a moderate heat through the day; then it is carefully placed over a kettle of hot water, or on top of the stove, until it is brought to a heat about one-third above that when taken from the cow; it is then removed to its former place, where it remains until the next

night, when the cream has risen sufficient to take off. Great care should be taken not to allow it to become too much heated, as the quantity of cream will be much less when ready for churning; to one pailful of cream, add four quarts of new milk, which in addition to the above method, will give a taste and flavor far surpassing that of the best made June butter.

I likewise contend that one-third more of butter from the same quantity of milk can be made from the above method than any other way.

A LOVER OF BUTTER MAKING.

C——n, N. H.

—

WHAT MANURE FOR PASTURES?

MR. EDITOR:—I have ten acres of new ground, rather light soil, descending to the east, one quarter of the surface covered with large rocks and ledges. This is seeded with timothy and red-top, and sowed with rye in September, 1854, and clover seed in the spring of 1855. I intend it for pasture.—What shall I put on to improve the land, and the amount of feed? If plaster, how much per acre, or if any of the fertilizers of the day, how much per acre? C. W.

Indian Orchard, 1856.

REMARKS.—Apply ashes, if you can get it for anything less than twenty cents a bushel, or leached ashes for twelve cents. Plaster sometimes has a good effect. Sow, when the dew is on, four to six bushels an acre. Try an eighth of an acre with guano, and another eighth with superphosphate of lime, and note the results. No one is competent to tell *what* the result *will* be.

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HOW TO USE STRAW—ASHES—CLOVER SEED.

MR. EDITOR:—I wish to have your judgment, or that of some of your correspondents, as to the best way to dispose of straw. I have eight or ten tons, and wish to make some disposition of it this spring. What effect would it have to burn the straw on the land before sowing? (*a.*) I have heard of scattering potatoes on grass land and covering them with straw; would that be profitable? (*b.*) How would it do to plow it in deep? (*c.*) Also the best and most profitable way to use dry unleached ashes, on dry loamy or gravely soil? (*d.*) Is it best to sow timothy in the spring or fall? Will it answer to sow clover seed in the fall, if so, at what time? (*e.*)

I have running water to my barn, caused by a force pump, and wish to know how I can firmly attach the lead pipe to the socket snout, or nose, of the pump, so that it can be easily removed? (*f.*) I have done it with a hose wound with a strong cord, but it bursts frequently.

Is sour milk injurious or beneficial to cows, if injurious why? By answering the above you will much oblige, E. KINGSBERY.

Derby, March, 1856.

REMARKS.—(*a.*) There would undoubtedly be great loss in burning straw on the land, because all its volatile matter would be dissipated into the air. The straw, plowed under, would supply a large amount of vegetable matter, or humus, to the soil, which would be highly valuable. We would recommend this course as an experiment; throw the straw into heaps near, or on, the field to be plowed; the spring rains will probably wet it through; then, just before plowing, spread on to the land as much as can be plowed under in half a day, so as to get it under in a wet state. If it is found difficult to get the straw under with the plow, throw it upon a cart, follow the plow and deposit in the furrow to be covered by the next furrow slice. This process may be a slow one, but worthy of an experiment.

When buried in the soil in a dry state, straw decomposes slowly, and produces a less sensible effect upon the succeeding crop, therefore, if a quick return from it is desired, it should be saturated with the water of the barn cellar or yard.

(*b.*) It is doubtful whether a paying crop would be obtained by covering the potatoes with straw on grass land. Try it, on a rod square.

(*c.*) To plow the straw in seven or eight inches deep, is, we think, the true course, and one from which important results may be realized.

(*d.*) Ashes, like barn-yard dung, is a standard manure. It is a universal panacea. Spread it broadcast and harrow lightly.

(*e.*) Young clover, from seed sown in the fall, is apt to winter-kill. Sow it in March—if on the snow it is as well, and then you can see the seed and sow evenly. Timothy seed may be sown in April, May, or in July, August and September. Some persons seed down grass land in October, but as a general thing, it is too late.

(*f.*) Some person better skilled in "pipe laying" than ourselves, must answer this query; and also the one in regard to sour milk fed to cows. But sour milk is excellent for pigs—why not let them have it?

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ODD YEAR APPLES.

MR. BROWN:—Enclosed you will find communications from gentlemen who have in their orchards what we consider the very choicest variety of apples, with the addition of being odd year bearers. I have felt so much interested in this fruit that I have procured of Mr. Thorp some specimens from his tree, which I herewith present to you, and if your opinion should be favorable, I trust you will make it known.

You can judge of the interest I take in this fruit from the fact that of over one thousand trees which I have within a few years set out for orcharding, the largest portion are of this variety.

South Hadley, 1856. CHARLES EASTMAN.

REMARKS.—The apples did not reach us in perfect order. They appeared much like the Baldwin. Mr. Eastman's opinion came strongly backed by that of several other gentlemen who know the fruit.

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GUANO AND PLASTER.

JOHN H. SAUNDERS, *South Berwick, Me.*, informs us that he mixes guano and plaster, equal parts, and applies a large table-spoonful to the hill, and has found it to increase the corn and potato crops finely.

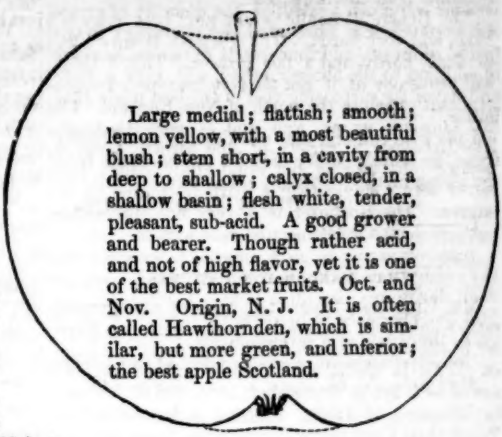
THE BLACKBERRY.

The common blackberry which is found growing wild in the fields and pastures of New England, is a fruit susceptible of easy and profitable cultivation. In its season, few of our berries are superior to this. It is a universal favorite, and always meets with a ready market, and at a price highly remunerative, as it costs less than the strawberry or raspberry.

In order to succeed in the cultivation of it, care must be taken to secure good and healthy bushes for transplanting, and to set them in good soil. By the term "good soil," we desire to be understood as indicating a quality of land similar in its physical character to that from which the bushes were taken. A soil of a sabulous or sandy character is the most congenial to the blackberry, and should be filled with old, well decomposed compost, into which forest mould and leaves enter as ingredients. Charcoal, finely pulverized, and wood ashes, leached or unleached, make an excellent top-dressing for the beds. If these stimulating substances are applied in sufficient quantity, there will be but little trouble experienced in securing a good and abundant crop of fruit.

But the blackberry plant, like many others, attempts to do too much. It will blossom profusely, and set three or four times as much fruit as it can perfect. As soon, therefore, as the blossom leaves begin to fall, trim out with the scissors, half or two-thirds of the fruit, or according to the amount which has set. We failed in obtaining a crop, for two or three years before we learned this lesson; but since we have thinned, have always obtained a crop.

MAIDEN'S BLUSH APPLE.



Large medial; flattish; smooth; lemon yellow, with a most beautiful blush; stem short, in a cavity from deep to shallow; calyx closed, in a shallow basin; flesh white, tender, pleasant, sub-acid. A good grower and bearer. Though rather acid, and not of high flavor, yet it is one of the best market fruits. Oct. and Nov. Origin, N. J. It is often called Hawthornden, which is similar, but more green, and inferior; the best apple Scotland.

For the New England Farmer.

A FEW WORDS ABOUT PEARS.

In Barry's *Fruit Garden*,—a work all fruit cultivators should have—on page 81 are the following remarks:

"*Double Working.*—When we graft or bud a tree already budded or grafted, we call it 'double-worked.' Certain very important advantages are gained by it. Some varieties are of such feeble growth, that it is impossible to make good trees of them in the ordinary way of working on common stocks. In such cases we use worked trees of strong growing sorts as stocks for them."

* * * * "A great many improvements may be effected, not only in the form and growth of trees, but in the quality of the fruit, by double-working. Very few experiments have yet been made on the subject in this country, except from necessity; but the general interest now felt on all matters pertaining to fruit tree culture, cannot fail to direct attention to this and similar matters, that have heretofore, in a great measure, been overlooked."

I have been cultivating, quite extensively, for a few years past, a pear I think admirably adapted as a stock, for the purpose above mentioned of "double-working. This pear is quite common in this neighborhood. I have seen it in various parts of the country, grafted on old trees, but have never seen any young trees of this variety for sale, or growing in any nursery except my own. It may be, for aught I know a well known old variety. It is an abundant bearer, ripe early in August, of medium size, keeps but a short time, and would be considered, by most people, a very good pear. It finds a ready sale at good prices in the market here, under various names, as the "August pear," "Sugar pear," "Jargonelle," &c. I have adopted the latter title though at the risk of a little confusion, and advertise and sell it under the name of "Jargonelle."

I am much interested in the cultivation of the pear, and have been experimenting for a few years past with nearly one hundred varieties, very few of which I find perfectly hardy here. Many, even those having the highest recommendations, I find exceedingly difficult to raise from the ground. I think the main trouble lies in the injury the young wood receives during winter, which causes a stinted growth the ensuing season.

The pear referred to above, far surpasses all others in my collection for its wonderfully strong and vigorous growth, and its freedom from injury during the winter, and from blight of all kinds; never fails when transplanted, to live and grow well in all soils and situations, succeeding perfectly where many esteemed varieties entirely fail. It makes the finest looking tree in the nursery, remarkable for its upright, handsome and symmetrical form, with its hard and stocky wood. I have great confidence it will prove exceedingly valuable for a stock on which to work varieties of slow growth and difficult to raise. In fact, I do not think I have a pear in my collection, of which if an orchard was planted, I should not be a gainer by double-working on the "Jargonelle." That is, for orchard or even garden cultivation, set out the Jargonelle, and let them grow until well established, and graft from time to time, with varieties deemed most advisable. I have not, as yet, practised this method much, but intend to on an extensive scale, and in regrafting, I should retain all of the stock I could. I grafted the Seckel on a young tree of the Jargonelle three or four

years after it was taken from the nursery rows, and obtained fruit the third year.

The Beurre d'Amalis is the next best grower I have, and very hardy. The Flemish Beauty I find perfectly hardy, and a fair grower. This, I think, will prove one of, if not *the very* best pear for general cultivation in the north of New England. The St. Ghislain grows well and is perfectly hardy. The Urbaniste, a variety of slow growth, tardy in coming into bearing, but wonderfully hardy; have never seen a single twig a particle injured by the winter. The Rostiezer is a very fine, promising, early variety, succeeding first rate with me.

I am preparing to go somewhat extensively into the cultivation of the pear on its own roots, and shall devote my attention mainly to those kinds I find by experience to be perfectly hardy and adapted to the wants of a severe climate.

See advertisement in another part of this paper.

Wakefield, N. H., April 1. JOHN COPP.

For the New England Farmer.

CIRCUMSTANCES ALTER CASES.

BY HENRY F. FRENCH.

How to apply Manure—Composting—Some Elements of Fertility Evaporate and others Sink—Deep Plowing—Seeding to Grass in Autumn—Sod and Subsoil Plow—Plowing Orchards—Distinction between Rules and Principles.

In a former article, I proposed to apply the idea suggested in the above caption, to the subjects of the application of manures, and of composting and deep plowing.

Shall I plow in the manure as deep as possible, or shall I leave it near the surface? Shall I compost it with mud or soil, and work it over to make it fine, or use it in a fresh and green state? The answers to these questions depend on circumstances, many and various. If you have a heap of common barn manure, and are ready to apply it this spring to your land for corn or potatoes, my advice would be, to mix nothing with it, but to spread it, and plow it in as deep as the plow will cover it, running to the depth to which the land has been usually plowed. As a general rule this would be the true method, but if the land be a stiff clay, for reasons which will be presently stated, the manure would be more profitably applied nearer the surface. The common manures consist of various elements, some of which are readily converted into gas and fly off into the air, and others which are not volatile, but are dissolved by water and carried away into the streams or into the ground.

A large proportion of the value of common manures consists of ammonia, which is always produced in the process of decay and putrefaction, and is very volatile, and is diffused at once into the air, when set free, and so benefits the world in general, as much as the original owner.

Another proportion consists of lime in various forms, and of potash, soda, and common salt.—These are inclined to sink into the soil, and to pass off below, unless taken up by the plants growing there, or combined with other substances which retain them.

Where lime is used in large quantities, its effects are not considered permanent, but in a few years it is washed out of the soil, and it becomes necessary to repeat the application. This is well understood in the old countries. So it is said that common salt may be applied in sufficient quantity to land to destroy all vegetation, and that its effects will not last beyond the third year.

If, therefore, we place the manure near the bottom of the furrow for a hoed crop, we save all the ammonia, which rises and is incorporated with the soil, and the roots of our crop extend low enough to find the other elements, which would otherwise slowly pass downwards by solution in water.

Clay, or alumina, has a strong attraction or affinity for ammonia, which it absorbs from the manure and even from the air, and retains for the use of vegetation.

Hence, upon a clay soil, manure, though covered but lightly, will not lose its ammonia, and the parts which naturally sink are better protected near the surface.

Formerly my own practice was to plow all manure into the soil, as deep as possible, but if it be fine enough not to obstruct the convenient tillage of my crops, I, in general, now prefer to keep it near the surface. In laying swamps, and clay lands to grass in autumn, I prefer to use fine compost manure, and to apply it to the surface, merely harrowing it in.

COMPOSTING.

As to *Composting*,—this depends on circumstances. For market gardening, much of the manure must be fine, or it will render a proper culture of the soil about the young plants, impossible, and so, in all cases, where it is desirable to produce an immediate effect, manure finely divided, and thoroughly decomposed, furnishes more ready food for the plant. Again, highly concentrated manures, like night-soil, require to be finely divided, or composted, that they may not prove too powerful and that they may be equally diffused. Where top-dressing is used, it is an extravagant waste to apply fresh manure, because the most valuable portion of it passes off into the air, whereas if thoroughly mixed with clay or swamp mud, charcoal, or anything else which will retain the ammonia, the loss will be slight.

Again, where we have swamp-mud which contains in itself elements of fertility, in a form which needs but the addition usually of this very substance, *ammonia*, which is always endeavoring to escape, to render it a valuable manure, we make a double gain by mixing it with the manure because we save the ammonia which would otherwise escape, and we convert the mud itself into a valuable fertilizer. If the mud can be added daily or weekly to the ac-

cumulating heap in the barn cellar, this is perhaps the best use of it. The less a manure heap is handled over, in the open air, especially in windy days in Spring, the more of its value is retained.

DEEP PLOWING.

The *Depth of our Plowing* is another question, which must depend on many circumstances. I plow all my own land from eight to twelve inches deep. Much of it is sandy, and I manure heavily. The deeper such land is plowed, the better it will stand the drought, because the roots will strike the deeper, and on light soils, however much the manure may be diffused, the roots of the plant are sure to pursue and find it. On my heavy clay soil, in turning over the sod after haying—say once in half a dozen years—to exterminate the bad grasses and briars, which spring up after a few years, I am suspicious that I have usually plowed deeper than is profitable. In my next experiment, for which I am preparing a large compost heap of night soil and swamp mud, I propose to run the plow to the depth of about eight inches, apply the compost, harrow it well, and sow my seed in August, or early in September. On such land, which has a strong affinity for ammonia, there will be little loss by evaporation, and the young grass roots will find their food at hand for a start. In after life, much of their nourishment is derived from the air and water; and the heavier portions of the manure they will have time to seize upon, before it washes below their reach. For several years, I have used the sod and subsoil plow, and run it a foot deep, for my hoed crops; but upon a stiff clay, which had been plowed but five or six inches before, I should deem such an operation dangerous. A deep soil is desirable everywhere, but it must be deepened gradually, unless bountifully manured. In our rocky soil, it is often impossible to plow more than eight inches, though I believe it is well established that a *granite* subsoil, taken even from the bottom of a well, will become fertile merely by exposure to the air, so that on such soils, we have little danger to apprehend from deep cultivation.

PLOWING ORCHARDS.

Shall I plow my orchard deep? is a question often asked. My answer would be, plow it as deep as possible, and subsoil it before your trees are planted. After that, plow as deep as practicable, without cutting the roots of the trees. As they extend through the soil, plow more shoal, so as not to disturb them. I have no doubt trees are often injured, by this violent kind of root pruning. There are "circumstances" to be regarded as to the treatment of apple trees. On the old homestead at Chester, on the firm granite subsoil, an apple tree takes a hold of the earth that the elements themselves cannot unloose. The wind may break down the tree, but it cannot uproot it. On our sandy land in Exeter, it is no uncommon thing to see a thrifty tree so loaded with apples, as to actually be weighed down, and its roots drawn from their bed, on one side. The root, in a deep, fine soil, with no surer foundation than sand for twenty feet below, can find nothing of sufficient substance to which to attach itself. Now in the first case, the earth may be kept as light as possible by frequent forking, and deep tillage. In the latter case, the soil is fine and porous enough, without artificial aid, and if manure be applied, and merely covered, and the land be occasionally laid to grass for a year or two, *provided it be kept always rich*, the trees will be the better for the treatment.

General *Rules* for the treatment of all soils, cannot be given. General *Principles*, to be applied by the aid of common sense, may be learned by all who seek for them in the proper direction. Until the distinction between rules and principles is better understood, we shall continue to have those, whom even braying in a mortar will not cure of braying in another sense, complaining that the teachings of scientific agriculturists are inconsistent.

For the New England Farmer.

SWEET APPLES.

The cultivation of sweet apples has been too much neglected; they often command an extra price—especially the best winter varieties—and it is difficult to obtain them, even at that. Many persons prefer them, rather than the acid kinds, for the dessert, and for baking; they are altogether superior in sickness. As food for cattle, and other animals, they are especially valuable. It may be said that horses or cattle have sometimes broken into orchards and surfeited themselves, so as to cause their death, or serious injury, and the same may be said of the corn-field. Apples fed to stock daily, and in proper quantity, are no doubt beneficial, and are highly relished by them. An experienced farmer in this vicinity, formerly a member of Congress, informed me that he had tried the experiment of feeding swine with boiled sweet apples and potatoes, and that he never had better pork, or less difficulty in fattening it. There are superior kinds of sweet apples to be found in the catalogues, and none but those which rank as first rate should be selected for cultivation; among these are the Early Bough, Danvers Winter, Haskell and Orange Sweet, Tollman, Seaver and Ladies' Sweeting; the last mentioned is a New York variety, which is highly recommended, but may not have been sufficiently tested here. There are other kinds, as well as the above, which are of first quality, and one can select according to his fancy, always bearing in mind that the variety should be productive, the fruit first quality, and the tree hardy, and of vigorous growth. It is no more expensive to cultivate a tree which will produce from five to ten barrels of good fruit in a bearing year, than one which will yield but a single barrel, and that nearly worthless.

O. V. HILLS.

☞ A negro carpenter was lately sold in Adams county, Miss., for $3,700.

IMPROVEMENT OF STOCK.

Considerable has been said of late, of the *heretical notions* put forth in the Report on *Milch Cows*, in Essex County, 1855. Without presuming to be expert in these matters, we beg leave to call attention to the closing sentence of this report, which reads as follows, viz:—

"Whether cross breeding with imported stock—or a course of judicious selection for a series of years from one common stock, be they natives or nameless, or your well aiding the selection, by a system of constant care and nutritious food, will best accomplish the end in view, your committee express no opinion."

Although the intelligent chairman of this committee prudently abstains from the expression of an opinion, no one can carefully analyze and compare the facts included in his report, (see abstract, p. 193—199,) without coming to the conclusion that his own judgment was in favor of "the common stock" of the country as the best basis of hope for improvement.

For the New England Farmer.

EXPERIMENTS WITH GUANO.

MR. EDITOR:—Dear Sir,—In your number of the 15th inst., is a statement purporting to be my experience in the use of Peruvian guano, which is far from my experience in practice. If it is not asking too much, you will oblige me by publishing this statement of my experience with the Peruvian guano.

In the spring of 1852, I purchased one ton of said guano for $56 delivered. The land it was used upon was a gravelly pasture that was never manured, plowed in the fall and cross plowed in the spring. The guano was carted into the field in the sacks, and placed so as to be convenient for putting 300 pounds per acre, then emptied from the sacks into the furrows, or a smooth place, and mixed with about one-quarter earth, then sowed broadcast from a bag or basket, saving out the hard lumps; when mixing it with the earth, put the lumps in the sacks, and at some convenient time, place them upon a flat stone, and pound them fine with an axe or stone-hammer, and sow as above; nubs not larger than walnuts or chestnuts, will do no harm. Sow on still days, if damp weather, all the better, and harrow as fast as sowed, to keep the ammonia from escaping: then well brushed over with a good white birch bush, so arranged as to take a sweep 12 or 14 feet wide, which is preferable to a good roller. The second week in May, I planted the corn square, three and a half feet each way; then cultivated it both ways; it required but a little hoeing. Good judges estimated it to increase the crop at least fifteen bushels per acre, upon seven acres. We had a good opportunity of judging, as it was side by side with that which had no guano.

I also made an experiment on meadow lands, both wet and dry, by sowing broadcast 300 pounds per acre, and harrowed as before, and upon each side of said acre, plowed in fifteen loads of good stable manure. The land was equally good, and was planted and cultivated alike. The acre that was guanoed yielded from a quarter to a third more than the manured, and was eight or ten days earlier. In the fall sowed to rye, and when harvested, the guanoed acre had the preference.

I have also mixed guano with a quarter earth, or one bushel plaster with 300 pounds guano, per acre, and sowed it as a top-dressing in the spring upon grass; sow in damp weather or before a rain. I have tried it upon wet, rich lands, and upon uplands poor and dry, with good success. Also, after taking off the first and second crop of hay, it has always paid.

In the spring of 1854, I purchased of Messrs. Allen & Co., of Springfield, the Peruvian guano, at $53 per ton. Sowed one ton upon eight acres of gravelly pasture as above; cultivated as above, and it gave me 218 bushels good shelled corn; all that saw it judged that the guano increased the crop 100 bushels; the stalks sold for $30, which would not have brought more than ten; the corn sold for $110, so that the $53 worth of guano, gave a profit of $77. I am confident it produced more corn than $100 worth of manure, to say nothing about drawing it one and a half miles. In the fall, sowed the above to rye, adding 150 pounds guano per acre; it more than doubled any previous crop, and gave fifty per cent. more grass, for feed, than ever before.

I also plowed in fifteen good cart loads of stable manure per acre, on seven acres of my meadow, some of it warm, some cold and heavy loam; sowed 150 pounds guano upon five acres of it, and bushed the whole, but did not harrow for fear of disturbing the manure; planted the corn the third week in May, three feet square, cut it up the first week in September, husked early in October, ripe and dry. Weighed the husked corn from the same number of hills upon one rod of each, and upon three different rods of each, and made an estimate of the number of hills to the acre, and allowing 74 pounds to the bushel, as it was very dry, and found the average increase per acre of the five acres that were guanoed, was 23 bushels, so that $19,87 worth of guano gave an increase of 115 bushels good shelled corn, and it was eight or ten days earlier than the two acres that had no guano upon the land, just alike, and has been treated and cultivated alike for years.

Also sowed half a ton at the rate of from 100 to 150 pounds per acre. The drought affected some fields so that it would not more than pay for harvesting. It was so with mine where no guano was used, side by side, but where it was used, it had very little if any effect—all cultivated alike in raking to set it up; where the guano was it produced nine bunches to one on the same distance where there was no guano used, the straw was increased enough to pay for the guano—to say nothing of the berry which was very heavy and nice.

Last spring, 1855, plowed in fifteen cart loads of good stable manure per acre, on nine acres of warm river land. Then sowed 250 pounds guano per acre, and bushed it in with a bush harrow, as I call it. Planted the first week in May, the Dutton twelve-rowed yellow corn; fifteen years ago the ears were short; by selecting the best ears for seed, they have increased in length and size of the great twelve-rowed corn, that is late. Every hill came up and was healthy, and of a dark green color, and was even over the whole field. The first week in August the ears were suitable for boiling; cut it up the second week in September, and husked in Oc-

tober, perfectly ripe and dry. Good judges admit that the guano increased the crop at least twenty bushels per acre, and was ten or twelve days earlier for the guano; so that 1350 pounds guano gave an increase of 180 bushels corn. Upon one acre of the same field, sowed 300 pounds guano without any manure, harrowed and bushed it in, planted it same time and cultivated with the other—on harvesting, it was better every way than where it was manured and 150 pounds guano; showing plainly, that 300 pounds Peruvian guano will make more corn than 15 good loads good manure.

Also sowed one ton guano upon seven acres of poor pine plain land worn out. After plowing, as I prefer harrowing and bushing it in as it mixes it more suant in the earth, which is very important, and prevents the guano from injuring the crop, as I have never had any injured, always plowing seven or eight inches deep, planted the eight-rowed corn on the second day of May; all came up, though it was exposed to the crows; they did not pull it up, as it was planted from three to four inches deep, and patted with the hoe—when planted shallow the crows almost always pull it badly in this vicinity. Cut it up the second week in September, and husked in October. It produced

205 bushels shelled corn, ripe and dry, at $1 per bush.	$205,00
The stalks sold for	26,00
Making	$231,00

Cost of growing crop:

Plowing	$14,00	
Harrowing and bushing	4,00	
Sowing guano	2,00	
Planting corn	3,50	
Cultivating three times once in a row	8,00	
Very little hoeing three times	6,00	
Cutting up and stacking corn	7,00	
Husking and carting corn	10,50	
Interest and taxes on land	4,20	
Guano	53,00	
Thrashing corn	4,00	$116,20
Profit		$114,80

The last week of last June, sowed one ton of Peruvian guano upon fifteen acres of poor sandy white birch land, worth not more than $6 per acre, and plowed but once about the first of June; sowed the buckwheat and guano as above, and harrowed and bushed them in together, cradled and set up the last week in September, carted into the barn before the fall rains in fine order; thrashed in the winter, as the straw was needed for bedding for stock; it is worth as much as any straw for bedding, and when cut before the frosts, cattle will eat it readily. It produced

203 bushels, of 52 pounds each, at 75 cts. per bush.	$152,25
10 tons straw, at $6 per ton	60,00
Making	$212,25

Cost of growing crop:

Plowing	$15,00	
10 bushels seed	7,50	
Sowing, harrowing and bushing	7,00	
Sowing guano	2,00	
Cradling and setting up	9,00	
Carting into barn	12,00	
Thrashing	10,00	
Interest and taxes	6,75	
Guano	53,00	$122,25
Profit		$90,00

The Peruvian guano does equally well with the potato crop; 300 pounds has given me more bushels of potatoes than 20 loads manure. Oats and spring wheat have proved equally successful. The common turnip, 300 pounds on very poor land, gives a better crop than forty cart-loads of manure per acre.

Seeding with grass seed in August or September for mowing or pasturing, 300 pounds has made fine crops of hay. Turnips may be raised with the same, sowed with the gaass seed. My experience from the experiments made proves that one ton of the genuine Peruvian guano will make more corn than one hundred loads of good manure, worth with us one dollar per load; and 300 pounds has always made more corn for me, than twenty loads of my best manure. DAVID MOSELY.

Westfield, March, 1856.

WAR WITH ENGLAND?

To the Selectmen of the town of Concord:

GENTLEMEN:—I have received—and herewith send you—from our brethren in the town of Coggeshall, in the county of Essex, England, an address to the inhabitants of this town, invoking their influence for the perpetuation of peace between this country and England.

It asserts strong fraternal feeling towards us and the American people at large.

It is enrolled on parchment. I hope it will be read to the persons assembled in Town-meeting today, and such action taken on it as may be deemed proper, and then placed among the records of a people who were the first to resist aggression, but who sympathize with the sentiments of the address, and who believe that war, however fiercely waged, can never settle difficulties between nations.

Very truly yours, SIMON BROWN.

TO GEORGE M. BROOKS,
SAMUEL STAPLES,
JOEL W. WALCOTT, Esqs., } *Selectmen of the Town of Concord, Mass.*

Concord, April 7, 1856.

ADDRESS.

To our Brethren and Sisters, the Inhabitants of Concord, Massachusetts, U. S. The Address of the undersigned, Inhabitants of the Town of Coggeshall, Essex County, England:

It is impossible but that we regard with deep and unaffected anxiety any approach to a misunderstanding between the governments of the United States and of Great Britain; and the rumors of hostilities between the two nations have given us intense sorrow; we deeply regret that the influence of the Press in both countries should have tended to fan the spark into a flame; but we are devoutly thankful that the "God of Peace" has, by the more recent development of His providence, led us to believe that the gloomy forebodings which some of us entertained, will not now be realized, but that the amicable relations that have been so long maintained may continue undisturbed. Still we deem this a fitting opportunity to assert our fraternal feelings towards you, and our American brethren at large.

Friends and brethren, we hold the evils attendant upon war to be so tremendous, so unspeakably horrible and heart-rending—and believing that "God has made of one blood all nations of men," and that consequently all men are brethren, we would seek by all possible means to maintain peace. But there are strong special reasons why we should cultivate peace with the people of your land: Your ancestry is so truly noble, of which not merely England, but all Europe "was not worthy;" we

hold so much in common; we speak the same language; our literature is one; and for the most part our religion is one; bound by ties so solemn and tender, our alienation, for ever so short a time, we could not but regard as a fearful calamity.

Friends and brethren, accept this humble effort on our part towards the perpetuation of peace and good-will between us. May you be still more abundantly blessed by the Giver of all Good than you have yet been—and bright and great as have been the preceding ages of your country, may its future be even greater and brighter than the past.

Signed,

F. W. PATTISSON, *J. P. for Essex Co.*,

And 99 others.

On motion, a committee was raised to prepare and report a reply, which they did as follows:

The committee appointed to consider the subject of the address, report the following reply, and recommend that it be signed by the Town Clerk, the Selectmen, and such other citizens of the town as may find it convenient to do so, and that it be fairly transcribed and sent to the first signer of the Address.

To our Brethren of the Town of Coggeshall, Essex County, England:

We acknowledge the receipt of your late Address, asking us to exert whatever influence we may to perpetuate peace between Great Britain and the United States, and we accept it with pleasure.—Standing, as we do, on soil baptized with the blood of both nations, and that was once the theatre of war, we fully appreciate the sentiments you have expressed, and most earnestly desire that the bonds of union now so happily existing between us may never be broken; that both nations may remain not only the conservators of peace, but continue to cherish the arts of peace, the literature and religious freedom of which both have become such eminent examples.

It was the spirit of Peace which you invoke that settled this town without the shedding of blood, and which has enabled us to live in harmony and *concord* ever since.

We thank you for your kind thought of us, and trust that a common ancestry, a common literature and religion, together with the important commercial relations existing between us, and the highest civilization that the world has ever known, may keep us united in friendship and love, and convince us that War would be an unnecessary, as well as a fearful calamity.

In the spirit of Peace, therefore, and of fraternal regard, we return your friendly greetings.

SIMON BROWN,
E. R. HOAR,
R. W. EMERSON, } *Committee.*

Concord, April 7, 1856.

OHIO AGRICULTURAL COLLEGE.—An institution has been incorporated under this name and put into successful operation at Cleveland, Ohio. Its design is to place within the reach of farmers, both old and young, the means of acquiring a thorough and practical acquaintance with all those branches of science which have direct relations to agriculture.

The plan of instruction consists in daily lectures, which embrace all the departments of agricultural science; chemistry, in its applications to soils, manures, &c.; anatomy and physiology, with reference to feeding and breeding of stock; geology and mineralogy, and botany; natural philosophy, rural architecture, draining and farm-book-keeping, and the political economy and history of agriculture, are included in the plan. HARVEY RICE, President, and THOMAS BROWN, Editor of the *Ohio Farmer*, Secretary.

For the New England Farmer.

THE ORIOLE'S LAMENT.

Cairee, cairee, pip-pip-pee,
Where are ye, come, come to me;
Here I hung your cradle soft,
Safe on bough that waved aloft;
Here ye nestled 'neath my wing,
Here I nursed you in sweet spring.

Answer me, my fledglings dear,
Mother's call will ye not hear?
Summer's o'er, frost nips the rose,
Green leaves fade, the chill blast blows,
Autumn lowers, come, come away,
To climes where shines a brighter day.

Cairee, cairee, hark ye, here am I,
Hither to me swiftly fly;
Long I've sought you mourning sore,
Grove and wildwood wandering o'er;
On your birth-tree last I light,
Ere my hope shall sink in night.

Late I carolled, blithe and gay,
'Mid the blooming trees of May;
Joined with warblers of the sky,
Recking nought of danger nigh—
Darlings sweet, your tender voice
Bade this swelling heart rejoice!

Now I flit, in sad October morn,
Robber fell has left my breast forlorn;
Man, thou spoiler, didst thou hear my lay,
Boon most free, and thus my trust betray,
Heeding not my wail, my dire alarm,
Pitying cry to save my brood from harm!

Ravished offspring, silent groves, farewell!
Winter's harp, thy dirge my grief shall tell;
Lonely, far I fly to southern skies,
Where may foes no more my peace surprise;
When sweet spring these northern climes shall greet,
May we hope, in man a friend to meet? J. L.

Salisbury, Conn.

For the New England Farmer.

WHEAT CULTURE IN MAINE.

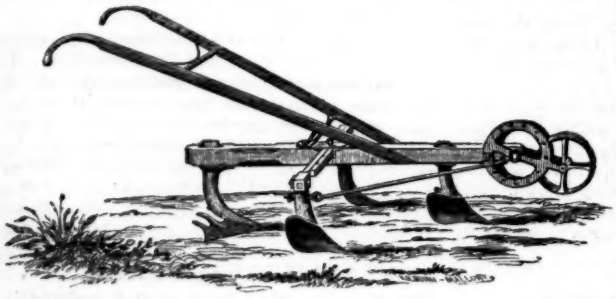
MR. EDITOR:—Much has been said against this State as a wheat growing State, and the idea is becoming quite prevalent among many farmers that wheat cannot be profitably cultivated here. The farmers here contend that a very tenacious soil is required for the production of this grain, and consequently you see but very little wheat growing on light loams. Now that a tenacious soil is not *best* adapted to the cultivation of this grain I will not dispute, but that it cannot be successfully grown on light soils, I will attempt to dispute, for on such soils I experimented the past season with good results. Two years ago I purchased a farm which consisted mostly of what was called by the neighbors *weak land*, and had been under the scientific culture of an old sea captain for twenty years previous to my purchase. The land was completely

worn-out and exhausted from the fact that it never had been half cultivated. The land was very light but not sandy, and the captain said he could grow anything but wheat, and that would not pay in this State. The first year I put in a piece of wheat with very poor success, raising eight bushels from near an acre. The second year I had two acres of old ground which had never been manured. On this I carted near one hundred cartloads of swamp muck in the fall, distributing it in small heaps over the field. In the spring I spread it and plowed it in and sowed wheat. The spring was cold and backward, and from some cause it did not all germinate. After it came up I sowed on twenty bushels of refuse lime and as many more of ashes, the effect of which was soon perceivable. When it was ready to harvest, some of the straw was more than five feet high. I reaped it and it threshed out forty bushels, at the rate of twenty bushels to the acre. I think all light soils can be renovated by applying muck, ashes and lime, so that wheat, as well as other grains, will grow. J. M.

Searsmont, Maine.

HOWE'S EXPANDING HORSE HOE.

There is really no limit to the genius and activity of mind; one improvement suggests another, and their union, or the adoption of the best ideas, has been of immense benefit to the farmer. They save a vast amount of human toil, while their results are even more valuable than though human hands and muscles had been doubled or trebled. A great advantage in a good machine is—and one not always thought of—that while it turns off so much more work than man alone could perform, it does not have to be warmed and fed.



In the cut above we have another, and a new view of that excellent implement, the Horse Hoe. It possesses some advantages over the one introduced three or four years since, in having *parallel expanding bars*, so that it may be worked as wide or as narrow as is desired. The side teeth are also supported by a rod connected with the front part of the hoe, thereby giving them permanency, and without any wearing of the socket that holds the tooth to the bar. The want of expansion was often felt in the old hoe. The implement is made in the most thorough manner, and the improvements are by Mr. JAMES A. HOWE, of Boston, a gentleman of a good deal of inventive genius and skill.

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 9.

SOUTHERN COUNTIES—SURREY, HAMPSHIRE, DORSET, DEVONSHIRE, CORNWALL.

We now enter the county of Surrey. Rents should be about the same as in Sussex; for the soil naturally is not better. The southern portion of the county touches the Weald, and partakes of all its disadvantages. On the west, is another kind of barrenness, consisting of unsound moors, which farming has not yet everywhere ventured upon, because it would not pay the expenses of cultivation. As for the north and east of this county, London occupies it, with its environs and immense dependencies.

Surrey, therefore, is of no importance as an agricultural county; its large population is more urban than rural; and its area is only 450,000 acres. It is, however, the county most visited by strangers, and its beauty has always been celebrated. A few miles above London, the Thames is neither more nor less than a park river, whose clear waters, covered with swans, wind through green meadows, and under the shade of magnificent trees; its banks are studded with mansions and parks, interspersed with elegant villas, and pretty cottages; well-kept roads, running through this enchanting country, disclose its beauties at every turn.

Here you see the English taste for gardening—it is entirely rural. Indeed the taste of the English is pastoral; they are essentially agriculturists and sportsmen, even more than naval. Properly speaking, they have no woods, but trees scattered here and there, over large grass fields; and instead of foot-paths, they have roads; nothing artificial or having the appearance of arrangement—real country brought to perfection by the freshness of the turf, the beauty of the trees and flocks, depth of horizons and happy distribution of water,—the useful and the pleasurable, in fact, united; art aspiring no further than to separate nature from its roughness and decay, in order to leave it adorned with all its loveliness and fruitfulness. The *undulating* character of the country, (the English love to apply sea terms to all things,) adds beauty to its perspectives. Such is the appearance of the county of Surrey. And how much of New England might, and in time will wear the same aspect. It is not the soil that has wrought these wonders, because it is naturally arid in the high grounds, and marshy in the low; but labor and a pastoral taste. Even the commons, which are here and there to be met with, covered with their furze and broom and heather, by their wildness, add an agreeable variety to the view.

Hampshire comes next, continuing along the Southern coast, and is considered to be one of the most agreeable counties as a residence, on account of its mild and healthy climate. The Isle of Wight, where the Queen has her favorite residence, belongs to Hampshire.

Generally speaking, the soil is bad, especially towards the north. There was, formerly, an im-

mense moor here, known as Bagshot Heath. Several portions have been cleared, and others planted with pine trees, but most of it is in its original state. Moors again make their appearance towards the south, where there is a large forest, called the New Forest, made by William the Conqueror, who is said to have destroyed towns and villages that he might have it for a hunting ground. The New Forest covers 68,000 acres, and belongs to the crown.

The character of Hampshire, therefore, is a county of ancient forests and heather. The heather supplies food for a race of small but excellent sheep, known as Bagshot sheep. The oak forests, similar to those described in Ivanhoe, provide food in like manner for herds of swine, which furnish excellent bacon.

In the poorer districts of this country, single farms contain as much as 1000, 2000 and 3000 acres. In the southern part, they range from one hundred to five hundred acres. The large farms are almost entirely devoted to sheep, and the race has been greatly increased in numbers, though not improved in the quality of meat. The race of pigs is no longer that tall, active and strong race of former days; but one that fattens better and more quickly.

This county calls on me to say a few words on English trees. The existence of the New Forest is now threatened, on the ground that it might be advantageously parcelled out and sold, either for farms or parks. In England, the prejudice against clearing land is not great, because coal is abundant for fuel, and the rapid advance of population makes it necessary to look about for means for its support. But observe—the destruction of forests in England, does not imply the destruction of the large trees; far from it. If England has less wood than most other countries, she possesses more fine trees. Most of her counties present the aspect of a well-wooded country; but the trees are scattered among the hedgerows, in the parks, and along the roads. They are not packed together. At the same time, all lands, which are unfit for anything else, are planted. The art and taste for plantations are widely extended in England, and promise, in the future, to be a source of great wealth. To grow wheat on wheat lands, and timber on lands not suited for cultivation, and everywhere else to make use of trees as shelter and screens, as well as for ornamental purposes—to have, in fact, a sufficiency of trees without having too many of them, but to respect them and defend them—this is the English system, and a good one.

A place presented by the English nation to the Duke of Wellington, called Strathfieldsaye, lies in the north of Hampshire. It is one of those stiff, clay soils, so difficult to work. The duke laid out the whole rental upon improvements of all kinds—in draining, marling and farm offices—to little profit. Such an outlay on a less rebellious soil, would have given ten times the result; but the old soldier persevered in the struggle, considering it a point of honor as well as of duty, to be stronger than his land. He was much beloved by his tenants and neighbors, who profited by his liberality. He caused commodious and comfortable cottages to be erected for his laborers, with about two perches of garden ground attached to each—renting them at twenty-five cents a week, and taking his pay in labor.

Dorset is the next county to Hampshire, following the coast line. Here the aspect of the country changes. In place of the wooded hills and dales of Hampshire, we find extensive calcareous downs; bare, without trees or shelter of any kind; possessing a scanty population of about one to three acres, few habitations, few gentlemen's seats, very extensive farms; in point of agricultural wealth, rather inferior to Hampshire; but having a higher average rent. Most of the country is in pasture. Agricultural occupations are principally the rearing of sheep for the butcher, and the care of milch cows for the production of butter. Upon this poor and dried up soil, greatly resembling the Downs of Sussex, any other system of culture would probably fail. Turned to account in this way, the land affords an average rent of about five dollars the acre.

Mr. Huxtable, one of the boldest pioneers of English agriculture, resides in the county of Dorset. This gentleman was one of the first, after the repeal of the corn-laws, to assert the opinion—which he did in a pamphlet—that, even at low prices, English farmers could retrieve themselves, if they kept up their courage. One can imagine the storm such an assertion raised. Mr. Huxtable was treated as a public enemy, although himself a farmer, as well as rector of the parish of Sutton Waldron. He has two farms, upon which he put his theory to the proof. The one near Sutton Waldron is that upon which the distribution of liquid manure by subterranean pipes was first practiced. The other, containing 280 acres, lies upon a bare, calcareous hill, much exposed, and rising abruptly several hundred feet. It was, at one time, almost in a state of nature, but is now admirably cultivated, and all the new methods of culture are carried out upon it.

The two remaining Southern counties are mountainous, and of granite formation. Devonshire, which comes next to Dorset, is famous for the beauty of its scenery, and the mildness of its climate, and it is no less worthy of attention, in an agricultural point of view.

In no part of England, has irrigation been carried to a greater extent than in Devonshire. The streams, which run through granitic soils, are very fertilizing, and the land there lies very favorably for such works. It may be said that there is not a stream in all the county, however small, which is not collected and turned to account. The new breed of Devon cattle is justly reckoned one of the handsomest and most productive in Great Britain. It is below the average size; but for symmetry and for the excellence of its beef, there is no breed superior. The cows do not give much milk; but the quality of the butter made from it is celebrated. It is, in fact, butter and cream alone, which the numerous dairies of Devonshire supply. The cereal cultivation is very limited; the soil being more suitable for green crops. The country is covered with apple trees, from which much cider is made.

Cornwall is covered with a mass of barren mountains. Agriculture holds only the third place among the occupations and resources of the county. Tin and copper mining occupy a considerable portion of the people, and fishing another portion; and all that is to be said is, that the effects produced on such farming as there is in Cornwall, by the proximity of these industrial occupations, is very observable.

We have now travelled through the southern counties of England. I think every farmer, who

has read my sketch of them, and of their soil, will agree with me, that New England soil is not inferior to the soil we have travelled over, in these southern counties. We have been on Romney Marsh, and met the New Kent sheep; on the South Downs, and seen the South Down sheep on their native soil; among the mountains of Devonshire, and seen the New Devon cattle; among the heather of Hampshire, and seen the Bagshot sheep; we cannot find in New England but few (and those imported) such breeds of sheep and cattle, but a soil as good as that which sustains these breeds of animals, is abundant enough in New England. The soil of New England, then, will not prevent its equalling, at least, the southern counties of England, in agriculture; this is a fixed fact. Is it then a very vain imagination, that the day will come, when New England will have breeds of cattle and sheep, markets, labor and capital, such as will bring her agriculture up to English agriculture? It would not surprise me, if the child, and perhaps the man is now living, who will see Mr. Rigden's farm repeated in New England. And it would not surprise me if there were many a sturdy New England farmer who will not lose heart under the competition brought to his door from the rich lands of the West, more than Mr. Huxtable did, when the corn laws were repealed. Why should the New Englander lose heart more than Mr. Huxtable, when it costs nearly as much to carry a barrel of flour from New York city to the interior market, where the New Englander sells his produce, as it does to carry the same flour to the market where Mr. Huxtable sells his produce; there being now no duty in either case.

The course to be pursued in New England at present, appears to me to be this—to keep up the agricultural spirit and courage of the people, and the love of country life; to improve our breeds of sheep and cattle, and pigs and horses, and wait the time, not so distant as some think, when markets, developed by the growth of commerce and manufactures, and greater abundance of capital and labor, shall bring with them agricultural prosperity, and the marriage of farming and capital. Farther than this, our course is to demonstrate, if we can, and fix the conviction in the minds of farmers—if it be true—that success will crown the efforts of small proprietors, if farming be united with capital. The improvement in British agriculture has been through large farming; its origin has been aristocratic; we must show that success and improvement can attend farming by small proprietors; our improvement must be democratic in its origin, but accomplished by the aid of capital. No man is more capable of great exertion than the New England farmer; but to induce the exertion he must see he has the prospect of bettering his condition; whereas, now he too often looks for bettering his condition by spending the money he gets off the farm in investments off the farm, or by leaving the farm altogether. M.

A KNOWING HORSE.—"E. M.," of Belchertown, writes to the Amherst *Express* about a very intelligent horse, of which he is the owner. The following incident, among others, illustrates the matter:

"One day last week he was driven a few miles out of town, and on his return, some time in the afternoon, was fed with meal and cut-feed as usual, but for his supper he had nothing but dry hay, which did not agree very well with his sense of right, after travelling twenty miles with a load through snow drifts. However, he kept his thoughts to himself till we were all out of the way for the night; then, sundering his rope in some way, he passed through the cow stable, crossed the barn floor and the carriage-room to the granary, at the further end of the barn, some forty feet, where he had often seen us get the meal for him; he there found two bags of meal standing by the bin, tied up tight, but the top one being too heavy for his purpose, he threw it aside, and after examining the other bag, which weighed between fifty and sixty pounds, he took it in his teeth, and carried it about twenty feet, to a clean spot on the barn floor. Finding it difficult to untie it, he cut a hole in the side and shook out about a peck of meal, and ate what he wished; and seeing the cow (the only companion he has these long winter nights) looking with a longing eye at his pile of meal, he took up the bag again, and carried it about ten feet further to her manger, and shook out some more meal for her. They were found in the morning feasting together.

For the New England Farmer.

GRAFTING THE GRAPE.

MR. BROWN:—From reading the queries and remarks in your paper of 29th ult., I feel disposed to tender my mite of information and experience to Mr. Farrar, and all would-be-grafters of the noble grape. I have grafted the grape vine with *good* success, and it always pains me to see one of these native vines, after becoming well established in the soil, ruthlessly dug up as a nuisance, simply for the want of a mite of information to enable its owner to change it to any (or even all) of the different varieties to be desired. In addition to Mr. Downing's remarks, I would say, that it is better to use Babbit's grafting wax, as it facilitates the union between the stock and scion, and if put on with care (the same as in ordinary grafting) it prevents the stock from bleeding; so that one can graft them as early in the spring as the frost will permit, thereby securing a better growth and ripening of the wood, than if postponed till June. The grand secret of success is, *in keeping all sprouts from growing on the head or bulb* of the vine grafted. Generally, on a vine, where the roots and top unite, there is an enlargement, (which I call the head,) which is full of eyes, which are very ready to put forth and absorb the sap and supply the place of the old vine removed. As often as once a week I dig around the head of the vine, and remove all the sprouts, taking great care not to break the buds of the scions or disturb them in the least. I never leave but two buds on a scion, and cover them with fine earth, over which strew a little fine mulching, so that it will keep moist around the buds.

I hope Mr. F., and many others, will try the above, for I think they will be more than satisfied with the result. READER.

Winchester, April, 1856.

☞ Mr. Willis, of Orange, Mass., has sold the right of his "Improved Stump Extractor," for the States of Wisconsin and Iowa, to a gentleman in Milwaukie, for $8000.

AN ALDERNEY, OR JERSEY COW.

The Alderney cow, Flora, represented above, was exhibited and admired by the lovers of good stock, at the great exhibition in Boston, last fall. She was owned by G. H. FRENCH, Esq., of Andover, Mass., who also exhibited other excellent stock. The Alderney and Jerseys are bred on two islands off the coast of England, where no pains is spared to keep them pure. They are light red, yellow, dun or fawn-colored; short, wild-horned, deer-necked, thin, and small-boned, irregularly, but often very awkwardly shaped.

An English writer of emenence says: "The Alderney, considering its voracious appetite—for it devours almost as much as a short-horn—yields very little milk. That milk, however, is of an extraordinary excellent quality, and gives more butter than can be obtained from the milk of any other cow. Of this no one can doubt who has possessed any Alderney cows. The milk of the Alderney cow fits her for the situation in which she is usually placed, and where the excellence of the article is regarded and not the expense; but it is not rich enough, yielding the small quantity that she does, to pay for what she costs."

THE STRIPED SQUIRREL.

In answer to your correspondent, F. H. Whitney, I would say that I live in New Hampshire, and very near the State of Massachusetts, and have been acquainted with the striped squirrel in both States; that his habits are all the same; and further, that if Mr. W. ever saw fresh dirt lay at the mouth of a hole, that there had been some other help at work that did not belong to the family of striped squirrels.

I presume that I have dug out more squirrels than ever he did, and I do not find his account of the manner of digging correct in one quarter of the instances. They dig according to circumstances in the soil and situation, frequently running along several feet on a level, and not more than six or eight inches below the surface. If anybody else ever sees a squirrel digging his hole and leaving the dirt at the mouth, I wish they would let me know it, as soon as possible, and I will pay them handsomely for the trouble. B. F. CUTTER.

Pelham, N. H., Feb., 1856.

For the New England Farmer.

HORSES WITHOUT HAY—LICE ON CATTLE, &c.

MR. EDITOR:—Although not engaged in farming, still I am a constant and well entertained reader of your valuable paper, and feel highly interested in the subjects that fill its columns. In the number for March 15, I noticed an article on the use of cornstalks as fodder, and the preference cattle have for those of the sweet corn, mentioned by Gen. Chandler, of Lexington, and which fact has been observed by others. But what I wish to say is, that one of my townsmen cuts yearly about six acres of stalks, with which he keeps five horses in good working order, dealing it to them finely cut, with the average quantity of cob meal. With regard to keeping on hay and grain, a friend of mine who has constant use for his horses in teaming on the road, says he keeps them in good condition with seven quarts of meal and shorts with their hay, dealing to each horse two quarts in the morning, two at noon, and three at night, with no more hay than will be eaten up clean.

In the article under the caption "What ails my Cow?" the writer says "he uses unguintum on the parts affected, *sparingly*." It should be thus used, if at all, as by the cow lapping it off, and perhaps,

too, by absorption, might sicken and die, as we knew once to be the case, where this mercurial preparation was rather too lavishly used.

Some of our older farmers contend that the lice go as regularly to the animal's nose to drink, as the cow does herself to the brook. Hence, they say, that the best mode to get rid of them is, to bore a gimlet-hole or two in the stanchions, and fill with the ointment, so that it may be rubbed off upon the neck of the animal, or by applying a circle of it around the horns and neck. Others, upon the same principle, apply oil about the head and neck, and declare it to be effectual, leaving the lice to perish on the premises, or quit, just as they choose.—Whether the theory be correct, or otherwise, I am not prepared to say. Will you enlighten me?

Waltham, March, 1856. S. B. E.

REMARKS.—The caution about unguintum on cattle is a timely one. It *never* should be used. Even when applied moderately, a little exposure may make the animal so susceptible to external influences, as to cause great mischief by it. It is a preparation of mercury or quicksilver, a metal, and passes into the circulation of the system, and, it is said, into the bones themselves. The teeth sometimes become loose so that the animal cannot eat, even if it had appetite. Good feed, cleanliness every way, frequent carding, and the careful application of soft oil, will prevent the access of vermin. Lamp oil is too clogging. A little neat's foot oil will cover a large surface if carefully applied. The *hand should be oiled*, then draw the hair of the animal through it from every part of the body, and rub the oil down to the skin. This should be repeated as long as any live animal appears.

For the New England Farmer.

POTATOES TO BE PLANTED.

MR. EDITOR:—In your paper of March 8, I notice some sensible remarks about potatoes to be planted,—probably from the pen of the intelligent superintendent of the county farm at Ipswich, as I have before met something of the same kind about his operations on the grounds under his care. I know of no man whose observations are better entitled to respect. It is so common to speak of the "tuber" or the "root" of the potato as the seed to be planted that whoever would use the term "seed" in a different sense, is bound to explain its meaning.

That fair potatoes can be grown, from what are called "small potatoes," there can be no doubt;—but if the practice of planting only "small potatoes" is continued for several years, the crop will degenerate, there can be as little doubt. For planting, I would select those of fair size and firm texture, fully ripe. I would have the ground fairly fertilized—but would take care that the potatoes planted should not come directly in contact with the manure, for when they do, there is more danger of the *rot*.

March, 1856.

NOTE.—In the same paper I noticed Mr. Driver's account of his Ayrshire cow, that gave about eight quarts of milk per day, for each day of the year; this, if I do not mistake, is quite equal to the best of your neighbor's *Devons*. The fact is, that no man has anything so good that another cannot be found with something to match it.

For the New England Farmer.

MANURE—URINE.

BY H. D. WHITE.

Much has been said and written of late on the subject of liquid manures; yet few of our farmers, comparatively speaking, appear to be aware of their importance. Urine contains principles that act with great energy when this liquid is applied as a stimulus to vegetables. In most European countries, its value is so well understood that it is there rigidly economized, and appropriated with as much care as are the solid voidings of animals.

Of cows' urine, Brande gives the following analysis. In one hundred parts, those found to be present—

Of Hydrochlorate of Potass and Ammonia	1.5
Sulphate of Porass	0.6
Carbonate of Potass	0.4
Phosphate of Lime	0.3
Urea	0 4
Water	96.8
	100.0

The urine of the horse, according to Vauquelin, contains, in one hundred parts—

Of Carbonate of Lime	1.1
Carbonate of Soda	0.9
Hippurate of Soda	2.4
Hydrochlorate of Potass	0.9
Urea	0.7
Water	94.0
	100.0

Human urine, adopting the analysis of Berzelius, contains, in one thousand parts—

Of Urea	30.20
Lactic Acid	17.14
Uric Acid	1.00
Mucus	0.32
Sulphate of Potass	37.01
Sulphate of Soda	
Phosphate of Soda	3.16
Phosphate of Ammonia	2.94
Hydrochlorate of Soda	1.65
Hydrochlorate of Ammonia	4.45
Phosphate of Magnesia and Lime	1.50
Silicic Acid	1.00
Water	933.00
	1000.00

In the above tabular exhibit, the quantity of sulphate of soda is not given—probably an omission by the compositor; but this is by no means a material defect, as the quantity of that article, be it more or less, would affect but slightly its value as a manurial agent. The components of the solid excrements, including those of the ash, or residuum remaining after deflagration, are here given, as it may be interesting to some to compare them with those of the liquid voidings. The first analysis is by Haidlen, the second by Jackson:—

Fresh cow manure, in one hundred parts,—the animal being fed on hay, straw, beans and potatoes,—gave—

2.2 of bile in a state of alteration.
8.3 mucus, &c.
14.1 non-digested (crude) vegetable remains and ashes.
75.4 water.

The ashes, which amounted to six per cent., were composed of the following ingredients:

Phosphate of lime	10.09
Phosphate of Magnesia	10.00
Perphosphate of Iron	8.05
Carbonate of Potass	1.05
Sulphate of Lime	3.01
Silicic Acid	63.07
Loss	3
	100.00

Of horse manure—the animal being fed on oats, straw and hay—one hundred parts contained—

Of biliary matter, and coloring matter, in a state of alteration	3.7
Mucus, (crude,) &c. &c.	6.3
Non-digested vegetable remains and ashes	20.2
Water	69.8
	100.0

The ashes amounted to six per cent., and their composition, as developed by the analysis of Jackson, is as follows:—

5.00 Phosphate of Lime.
18.75 Carbonate of Lime.
36.25 Phosphate of Magnesia.
40.00 Water.

100.00

An experiment which goes far towards demonstrating the great value and efficacy of urine when used manurially, was published not long since in an English paper. We present it in the author's own words:—

"A box of fine white sand was exposed to a heat sufficiently intense to dissipate its moisture and destroy every particle of organized matter it contained. It was then placed in a dry situation, and some seeds of the Egyptian wheat being planted in it, the whole mass was saturated with urine in a state of incipient putridity. The result of the experiment was that the wheat vegetated—grew rapidly through the season, and in autumn, rather before the maturation of the same grain in the open fields, produced a remarkable yield of fine and well developed grain. The application of the liquid was made weekly during the season."

Such facts have an important significance, and should be recorded and carefully pondered by the agriculturist.

Windham, Me., April, 1856.

For the New England Farmer.

WINTER KILLED WHEAT.

Mr. Editor:—Winter's great winding sheet is rapidly being dissolved—the sunny breezes, for the past few days, have an *unusual welcome*, every face is joyous, and whose more so than the farmer who anxiously looks for "seed time," and the green blade of wheat that so early peers itself through the remaining snow. Very soon he will be enabled to discover the winter-killed patches, if there are any, and I would advise him to harrow over these patches and sow as early as possible some *spring wheat*, adding ashes and lime, or ashes alone, by which he adds uniform beauty to his field, and the waste spot is profitably employed.

On the whole, it has been a favorable winter for grain. The danger to the crop rises thus—a deep snow to lie, while the grain is growing and before the ground freezes, is likely to produce suffocation, and rot, or an open or an early breaking up of winter, throwing it out by the roots, by alternate thawing and freezing—this late spring is favorable.

This teaches a lesson, that no other farm-work should hinder—sow early in September, cultivate deep, (2 or 3 inches) you have then an abiding root deep and strengthened against the attacks of "Old Jack Frost" who will never die, but at his word every flower, leaf and blade, droops and dies. He never compromises—all the garden is his and, man is *green*, if he fails to heed his law. H. Poor.

New York, April 7th, 1856.

THIRTEENTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the Farmer by H. E. Rockwell.

The *thirteenth* and last of the series of Legislative Agricultural Meetings was held in the Hall of the House, Tuesday evening. The subject for consideration was, "Fruits—their cultivation and preservation."

Hon. Marshall P. Wilder was invited to take the chair, and on doing so he spoke twenty minutes upon the topic assigned for the consideration of the meeting, and with which he is so entirely familiar. Few subjects, he said, exhibit so remarkably the progress of American society, as the cultivation of fruit. It is only about a quarter of a century since the first horticultural society in our country was established—the Massachusetts society, and a kindred one in Pennsylvania. Now, they are scattered over the country, from Maine to California, and from the British Provinces to the Gulf of Mexico. All are working harmoniously together, and aiding the American Pomological Society, whose influence extends throughout our national domain. The extent of the demand for fruit trees at the present time may be indicated by the fact that from a single nursery in New York, $80,000 worth of trees and plants were sold last year. The fruit crop in the United States is now believed to exceed $30,000,000 in value annually,—more than double the rye crop, and nearly equal to that of the potato. It is rapidly increasing in importance, and is destined to become one of the most important departments of American husbandry. No country is better adapted to the cultivation of fruit than ours, especially, of the apple and pear. Strange as it may seem, there are some varieties of the pear that seem to flourish better in Mississippi than in our own section. The Julienne pear reaches the weight of half a pound there, and the Beurre Diel sometimes weighs a pound and a half; and these from trees only seven years from the bud and fifteen feet high, bearing from one to two hundred specimens each.

It is not easy to calculate the importance of fruit culture, whether we consider the crop as a luxury, or as contributing to health and wealth. At no distant day, it is probable we shall be large exporters of fruit to other countries. It is, therefore, a subject which deserves careful inquiry as to what is the best mode of cultivation, and what are the varieties best adapted to particular localities, and also, to

general cultivation. As there would not be time to speak of many kinds of fruit in one lecture, he would confine his remarks to the pear.

The impression formerly prevailed that a long life was required to bring the pear to bearing, and hence the distich:

"He who plants pears,
Plants them for his heirs."

The first thing necessary is a genial soil, and proper preparation of it. It is absolutely necessary that the soil should be rich and deep, or be made so by artificial means. Thorough draining of the soil, also, in some cases, lies at the foundation of success. In a cold, wet soil, disease commences at the root; the juices become stagnant, and unfit for vegetation. Thorough draining permits the air to permeate the soil, warm it, and prepares the latent fertilizing elements as food. Plants do not suffer from drought where the soil is properly drained. The importance of draining is beginning to be understood, and is attracting the attention of governments, both at home and abroad. The Emperor of France has recently recommended the appropriation of 100,000,000 francs ($20,000,000) for the encouragement of draining,—an act which, if properly expended, will redound as much to his honor as any of his life.

For fruit trees the upper and lower soils, with appropriate manures, should be thoroughly incorporated. But however properly the soil is prepared, the varieties selected for cultivation must be suited to their localities also. All are not adapted equally well to the same section of the country. All plants flourish best in soils similar to those in which they originally grew. Although we have many excellent foreign varieties, the safest way is to raise our own seedlings. Van Mons, after a long experience, advised to sow seeds in order to obtain better fruits. He (Mr. Wilder) was satisfied that the best means of obtaining the most valuable plants for particular localities is to plant the most hardy and vigorous seeds, on the principle that like produces like, and from the conviction that immature seeds will not produce vigorous, healthy plants.

In reference to the cultivation of the pear upon quince stocks, he thought the prejudice against this practice must have arisen from a want of proper management. The pear upon the quince should be planted deep enough to cover the place of junction three or four inches below the soil, and then the pear will throw out roots from itself, and the result will be not only early fruiting, but also strength and longevity.

On the subject of the preservation of fruit, he said particular attention should be paid to gathering it. The pear should generally be picked a few days before it would naturally come to maturity. If the process of fermentation commences, the cellular tissues are broken, and decay will ensue.

When picked, pears should be kept at a low temperature, that the ripening process may not commence. The great difficulty is to keep them from ripening in the warm autumnal days, and he had not been able to keep a perfect equilibrium of temperature without the use of ice in the months of October and November.

In relation to the profits of fruit culture he thought there was no branch of husbandry that could be made more profitable. One gentleman in this vicinity purchased in 1848 as many dwarf pear trees as he could plant upon an acre, setting them in rows eight feet by twelve; and between the pear trees he planted quinces. He received from them on the 5th year 120 bushels of pears and 60 bushels of quinces. He sold about 70 bushels of the pears at from $5 to $6 a bushel, and gave the rest away. Only two or three per cent. of the trees have died, and they are still healthy and vigorous. Similar facts might be adduced to show the pecuniary advantage of the business of raising fruits. The following list was then given as being those which are best suited to this section of the country, those at the head of each class being the earliest to ripen.

SUMMER VARIETIES.

Doyenne d'Ete,	Boston,
Beurre Giffart,	Tyson,
Rostiezer,	Brandywine.

EARLY AUTUMN.

Bartlett,	Golden Beurre of Bilboa,
Doyenne Boursock,	Andrews.

MID AND LATE AUTUMN.

Louise Bonne de Jersey,	Paradise d'Automnes,
Belle Lucrative,	Beurre Bosc,
Seckel,	Beurre Diel,
Urbaniste,	Figue d'Alencon,
Flemish Beauty,	Vicar of Winkfield,
Lodge,	Beurre d'Anjou.

WINTER VARIETIES.

Lawrence,	Beurre d'Aremberg,
Winter Nelis,	Easter Beurre,
Beurre Langlier,	Doyenne d'Alencon.
Glout Morceau,	

VARIETIES WHICH SUCCEED WELL ON THE QUINCE.

Beurre d'Amalis,	Vicar of Winkfield,
Louise Bonne de Jersey,	Nouveau Porteau,
Belle Lucrative,	Figue d'Alencon,
Urbaniste,	Winter Nelis,
Duchesse d'Angouleme,	Glout Morceau,
Beurre Diel,	Easter Beurre,
Beurre d'Anjou,	Doyenne d'Alencon.

NEW KINDS WHICH GIVE GOOD PROMISE.

Beurre Clairgeau,	Conseillor de la Cour,
" Storkman,	Sheldon,
" Superfine,	Walker,
Emile d'Heyst,	Howell.
Pius IX.	

Mr. A. G. SHELDON, of Wilmington, said he had cultivated pears but little; but he had cultivated apples with much success and profit. In his practice he had followed the counsel of an early friend, and during the last sixteen years he had set out 1200 apple trees. When he commenced setting them out, one man told him it was of no use, for he would never get the fruit from them. But that was not a proper principle to act upon. His mother, after she was eighty-eight years of age, re-

quested him to set out an apple tree in each corner of his garden, and he did it, and she lived to eat the fruit from two of them. He sold his winter apples last year, on the trees, for $300. Apples would pay for raising for stock. Sweet apples are good to feed to horses occasionally. A neighbor had a cow that seemed to fail in her milk, and after being fed half a peck of sweet apples a day, for three days, her milk increased one quarter. For the market he thought the Baldwin variety, the best on the whole. He preferred to have his trees so trimmed as to have five main branches, in order that, whichever way the wind may blow they will be less liable to be split. He had tried setting them out at thirty-five feet apart; but he believed that twenty-five feet was a sufficiently great distance. It is better to cultivate the trees in this way, in order that the greatest amount of fruit may be obtained in the shortest time. There is only one man who knows where the first Baldwin apple tree grew, and Mr. Sheldon hoped some one would ascertain the exact locality, and cause a monument to be erected in honor of LOAMI BALDWIN, who raised that tree which has proved so great a blessing to the State. Such benefactors ought to be gratefully remembered; and he hoped a monument in honor of the chairman of the meeting would eventually be erected also.

The chairman stated as an inducement to plant trees, that a gentleman at the age of seventy-five commenced the planting of a nursery, and he lived to be over a hundred years of age, and eat of the fruits of his trees for many years.

Dr. FISHER, of Fitchburg, had planted over a thousand pear trees within the last two years. He took much pains to prepare the soil, by digging holes five feet in diameter when they were set out, and filling in with rich surface soil. He had not as yet had sufficient experience to enable him to speak of results.

Mr. W. G. LEWIS, of Framingham, first set out pear trees twenty years ago, and he had cultivated them on pear stocks. He had four Seckle pear trees, each of which yields $25 worth of pears annually. He thought there was no business more profitable for a young man than to cultivate pears.

Mr. SIMON BROWN, of Concord, also called attention to the profit of raising fruit. A gentleman who had brought up a family, and who had reached nearly seventy years of age, and lost much of his property, had a few acres of land, upon which he set out one hundred apple trees, and now he is made independent by the fruit of his trees. Mr. Brown urged the cultivation of the smaller fruits, such as the currant, gooseberry, raspberry, &c. There is too little interest in this matter, and he thought women as much to be blamed as men in regard to it. Mothers ought to insist that their children shall cultivate fruits. He had no doubt there would be seen a marked difference, as they go out into the world, between families reared in connection with a good garden and plenty of fruit, and those that have not been so reared. The former will be seen to go in advance of the latter in morals and virtue, and everything that goes to make this a comfortable and pleasant world. There is then a moral as well as physical aspect to this subject. Every one ought to plant a tree; and now is the time, in the spring of the year, to do this work. Let every one urge the planting of trees, to cultivate and improve the taste and to beautify our homes.

Mr. SHELDON urged upon the young present to carry out the suggestions of the last speaker, and to cherish the memory of such men as LOAMI BALDWIN. Being about to leave to take the cars for home, the chairman expressed to him his thanks for the honorable mention of his name, and assured him that he would be most happy to join in erecting a monument on the site where the original Baldwin apple tree stood; but he begged that the monument to himself might be postponed a few years.

Mr. SHELDON.—I hope it may for many. In answer to inquiries, Mr. Sheldon said he cultivated the land of his orchard, and trimmed the trees just high enough to allow cattle in plowing to pass under the limbs. He did not care how low the limbs grew, were it not for plowing under them. He set his trees about twenty-five feet apart. The trees might not last as long to be highly manured, and to have the ground plowed; but there was a quicker return and greater profits on the whole. It was better to get the money quicker and use it, than to be twenty or thirty years about it. The remarks of Mr. Sheldon were exceedingly valuable, and met with the hearty applause of the audience.

Mr. W. J. BUCKMINSTER spoke of the relative value of sweet apples, which he thought excellent for feeding to stock. He condemned the practice of buying fruit trees at auction sales, where generally only refuse trees are sold. Root grafting, too, he opposed. No security could be had for good trees except from thrifty plants, produced from seedlings.

The relative profit of cultivation of fruit and of grass or grain upon the same land, was then discussed by several gentlemen, Mr. JOHN BROOKS, of Princeton, doubting whether the profit in cultivating fruit, for a long period, would be as great as that of some other crops. He thought the land where trees are cultivated could not be profitably used for the cultivation of other crops at the same time.

Mr. BROWN had made no calculation, but he had been upon Mr. Sheldon's orchards many times and had noticed every year that he had fine crops of corn and potatoes and turnips there. He

thought the crops obtained there were as good as any on the farm, from the fact that in the endeavor to cultivate the trees well, the whole soil is well cultivated. Large crops have been obtained for sixteen years, and can be obtained for ten years more; and then, if the trees become too large to enable him to cultivate the land profitably, there can be no doubt that there may be reserved from each acre two trees that will be worth more than all the hay to be got from an acre. He (Mr. Brown) got his best crops where the trees stand, for the reason that the land is there cultivated best. He had obtained from thirty to fifty-six bushels of corn on the same land where the trees are. He had raised also twenty bushels of wheat to the acre, and four tons of millet. There was no doubt in his mind as to the practicability of raising good crops where there is an orchard, nor as to the profit from the cultivation of fruit in comparison with other crops.

The meeting this evening was large and very interesting, and the discussion, up to a late hour, was quite animated; but we have not room for further details.

For the New England Farmer.

"HOW DID YOU RAISE SUCH NICE PEPPERS?"

MR. EDITOR:—Having purchased a small place last spring, as the first step towards success in its cultivation, I subscribed for the *N. E. Farmer*, and found it a step in the *right* direction.

One item in relation to saving suds, slops, &c., for the benefit of the garden, was worth more to me than a year's subscription. I took a cask, and put in the droppings from the hen roost, and filled it with waste water from the house, and at night, with a pail and dipper, applied it to beds, vines, &c., and in fact, used no other manure for the garden.

Some ladies of delicate organization might have turned up their noses; but I was bound to have a garden, and I succeeded. I have been asked frequently, "how did you raise such nice peppers? Mine never get ripe." My answer is, "I take the papers."

It was my intention to enter the arena *against* small potatoes, and I experimented carefully with eyes, butts, large, small, cut and whole potatoes; and my conclusion is, that, with well prepared soil, and proper culture, small potatoes are as good as large. A friend gave me eight potatoes of the Jackson variety, about half as large as a small sized hen's egg, of which I made ten hills in my garden. The yield was three pecks, forty-seven of the largest weighing forty-eight pounds.

My employment as a teacher has taken me from home the past six months, and the consequence is, I have no manure heap this spring. So I must try something else, and, as I have an acre and a half that ought to be laid down to grass, without taking off a crop, I wish to propose a few inquiries through the *Farmer*. Had you prolonged your article in last week's *Farmer*, beyond a "reasonable limit," you might have spared yourself this article.

1. Will buckwheat, sown upon the land and plowed under, answer instead of manure?

2. Will India wheat do as well as buckwheat? It is easier to procure in this vicinity, and I am told it is of the same nature.

3. Is clover preferable to either? If so, how much should be sown to an acre to turn under?

4. My land is a gravelly loam, with any quantity of small stones; would *deep* plowing be profitable?

I use plaster and ashes, but have never tried any of the popular fertilizers.

And now, Mr. Editor, if the mooted question of "Woman's Rights" was buried, I would be the last person to give it a resurrection, yet the apostle has decided, that one right is to ask questions; and as I have not the privilege (?) of availing myself of the prescribed source, I venture to propound them thus publicly, trusting to your good nature to reply to a

Orford, N. H., 1856. SISTER FARMER.

REMARKS.—A "Sister Farmer" will always find the "latch string out," when she calls at the door of "*The Farmer*," and its editor will find pleasure in "keeping up his end of the yoke," in an agricultural conversation—*if he can*. Well, in reply to query 1. Buckwheat is good, and two crops may be plowed in the same season, if it is desired.

2. India wheat we know nothing of; it is probably a fancy name. But any stocky, succulent plant will answer the purpose, that is, supply vegetable matter to the soil.

3. Clover is better, we think, than most plants to be used as a green manure, as it furnishes a large amount of valuable roots. There is a difference of opinion as to the time the green plant should be turned under; some supposing the time should be when in its greenest and most succulent state, and others when the plant has passed maturity, and is in the first stage of decay. Sir Humphrey Davy says—"all green, succulent plants contain saccharine or mucilaginous matter, with woody fibre, and readily ferment; they cannot, therefore, if intended for manure, be used too soon after their death." He also thinks the proper time to turn plants under for manure, is when they are in flower, as then their leaves are most active in forming nutritive matter.

4. Plow deep, gradually. Very deep plowing, at once, to lay down to grass, would not be advisable.

EXTRACTS AND REPLIES.

PUTTING LAND TO GRASS.

MR. EDITOR:—Having but recently turned my attention to farming, I feel the want of practical experience, but as I am willing to *learn*, either from books, or from any other source, and knowing that you are always ready to give information on this most "noble and healthful employment of man," I wish to make the following inquiry.

I have a piece of land (commonly called bog land) which I wish to seed down to grass. It has been in grass for several years, but of an inferior quality, and is now covered with a "firm sod," so that an ox team may be driven over it without difficulty. I have been told, the better way would be to "top-dress with sand or gravel and seed down upon the

sod, for if broken up, it will take two or three years to get a firm sod, and the land is more liable to get thrown up with the frost."

The inquiry then which I wish to make is, would you recommend the above plan, or would you rather break up the land, and seed down with oats? for which the land is well suited. T. BRIDGE.

North Tewksbury, 1856.

REMARKS.—Undertake no more than you can accomplish, and *do it well*. Plow, by all means, manure liberally, pulverize thoroughly, sow about two bushels of oats per acre and cut them for fodder, and with the oats sow one bushel of red-top and eight or ten quarts of herds grass seed per acre. Top dressing will not give new roots to your grass—at least, not very readily.

—

MY MODE OF FARMING.

MR. FARMER:—In 1842 I purchased a wild lot of land, commenced clearing it, seeding down with the first crop. Some part of my land is very dry, getting no more than ten or twelve hundred pounds of hay per acre. In 1847, I commenced breaking up, plowing five or six inches deep, sowing the first year with oats and getting a light crop. But since I have become a constant reader of the *N. E. Farmer*, I have plowed eight inches deep, (and more) sowed the first crop to oats, peas and oats together, and peas separate, turning under the stubble in the fall. In the spring I harrow it well. I then haul the manure from the yard and stable, drop in small heaps, spread it even and plow in before it dries, usually about thirty loads per acre. For corn, I dung in the hill with what I make yarding my cattle nights the previous summer.

The next spring I sowed 1½ bushels wheat, ½ bushel timothy and four lbs. clover seed per acre. After the above treatment I got 1½ to 2 tons per acre, instead of ten or twelve hundred pounds. I never allow myself to take more than three crops before seeding down. Shall we, as Vermont or New England farmers, take a few acres of our best land and wear it out by keeping it under the plow for six or eight years in succession? Nay, but let us cultivate our poorest part, so that we shall have none but good. FREEMAN.

Northfield, Vt., Feb. 26th, 1855.

—

VALUABLE SHEEP.

Mr. NATHANIEL M. TRUE, of Meriden, N. H., has the present season shorn 100 sheep which averaged 6 pounds 14 ounces per head, of good wool, well washed, and sold readily for the highest price paid at time of sale. They are remarkably healthy, easily domesticated, quiet, cheaply kept and in length, thickness and compactness of fleece, are unsurpassed. A FRIEND TO IMPROVEMENT.

—

THE RED SPIDER ON ROSES.

MR. EDITOR:—Will you have the goodness, through your valuable paper, to tell me what will kill the red spider, that is so destructive to house plants? I have a choice rose that they have almost destroyed. A SUBSCRIBER.

Hopkinton, Feb., 1856.

REMARKS.—Whale oil soap, largely diluted, or soap-suds and tobacco water, are said to destroy the *Acarus*, or red spider. We have not tested it.

MICE GNAWING YOUNG TREES.

MR. EDITOR:—I find upon examination of my young apple trees, that the mice are making havoc among them by gnawing off the bark, near the ground, where the snow is deep. I think many valuable young trees are ruined already, and more will be, if neglected. For prevention I tread down the snow around the trees. Will you give us a method to save the trees that have been gnawed by the mice. J. H. W.

N. E. Village, March, 1856.

REMARKS.—If the tree is a valuable one, it may be saved by cutting the edges of the bark smooth and inserting, perpendicularly, three or four strips of fresh bark from another tree, binding it up carefully from the air.

—

NATIVE STOCK AND MILK.

GENTLEMEN:—Glancing the eye over the reports of the discussions on Neat Stock, that took place at the farmers' meeting, in the State House, on Tuesday evening last, though it is not easy to conceive, how *such varied reports of the same thing* could be given, one thing is clear, that *Native Stock* advanced very considerably on this occasion. Thanks to our noble friend, Mr. Fay, for the views he expressed. He is discriminating in observation, and independent in the expression of his opinions. He is above all sideway or sinister influences. He has no "axe to grind" on the farm, or any where else.

Several facts seem to have been admitted by all the speakers.

First, that the best butter-producing cows, or dairy stock, they have ever know were natives, or the common stock of New England.

Second, that not less than *six quarts* of milk can be relied on, under circumstances most favorable, for the production of a pound of butter. ESSEX.

—

HOW TO KILL TICKS ON SHEEP.

MR. EDITOR:—I saw in the last number of your paper a method by which to kill ticks on sheep, put in by E. B. M. I think he must be some years behind the times. My method to kill ticks on sheep is, to feed them on sulphur, mixed with salt, in the month of March or April, before they leave the barn; give them three or four pounds to one hundred sheep, given at three different times, and I will warrant you not to have any ticks at shearing time. I have tried it three times, and it proved a killer to every tick. I have a small flock of sheep, and there has not been a tick on them for two years.

Ludlow, Vt. R. C. H.

—

A LARGE HOG.

Mr. WM. CHILDS, of Union Village, has this day slaughtered his hog, whose weight was as follows:

Round hog	803 lbs.
Rough fat	40
Total	843 lbs.

and was two years and nine months old.

Union Village, March 5. M. R. WALKER.

—

THE CONCORD GRAPE.

A. E. P., *Springfield, Vt.*—The price of the Concord grape, this spring, is $2 00; or for a dozen plants, $18 00.

PIPES FOR CONVEYING WATER.

MR. BROWN:—I would like to inquire of your subscribers about the best material to use, to convey water to buildings. In this section, a large majority of the farms can have running water to all of their buildings. But the great desideratum is, what material to use, with an eye to cost and durability. Wood lasts so short a time, that I have discarded that; with me it has lasted from three to seven years. Lead pipe, under some circumstances, is poisonous. I now carry water to all my buildings in half-inch lead pipe. I wish to take up a part of it, and put inch pipe in its place. How long will iron pipe last to convey soft, spring water? Inch iron pipe is sold in Boston for fifteen cents per foot. Is there anything better and cheaper? How should iron pipe be laid down?

I have a hydraulic ram that has been in operation three years. It has worked well, so far; raises water forty feet, and supplies my house with an abundance. H. MORSE.

Johnson, Vt., Feb., 1856.

AGRICULTURAL ANECDOTE.

Capt. B., from small beginnings, became a *rich man*, if his own definition of that phrase be correct, (and I have never seen a better,) viz: "He is a rich man who is a little better off than his neighbors."

Capt. B. could give orders as explicit to his hired men as to the militia company over which he had presided. And he was fortunate in having Mr. P., a young man who understood the English language, and could toe the mark.

It was in the spring of the year; two stout yoke of oxen were hitched to the plow and driven to a part that had become nearly barren by cropping without manure. Mr. P. was placed at the plow, and furnished with a boy as teamster. "Now," said the Capt., "I want you should plow up the dirt that hasn't seen the sun for *four thousand years*." The orders were fulfilled by letting the plow in *beam* deep. The next order from the Capt. was, "*Now dung it to death.*" *Nuf sed.* Mr. P. was as faithful as Jack Tar on board a ship of the line, and, said he, "I watched that piece of land for several years, and it taught me one thing, that is, to plow deep and manure thoroughly." P. F.

THE GARDEN LILY.

Will you inform me through the *Farmer* where I can obtain the white Garden Lily, so called with us.

Manchester, N. H. B. S. S.

REMARKS.—Probably in many gardens in your neighborhood, or at the nurseries.

DEAR SIR:—I was reading the fourth Legislative Agricultural Meeting of Feb. 9th, which treated of *manures and their preparation*; and I wish, through your valuable paper, to know how is best to prepare apple *pomace*, and how to use the same for the benefit of the land and crops. A SUBSCRIBER.

Dublin, N. H., 1856.

REMARKS.—Apple pomace rots very slowly, and perhaps for that reason has been neglected as a manure. Its decay may be hastened by mixing it with some rapidly-decaying substance, as fresh horse-dung or urine. Judging as we do of other matters, it ought to be beneficial to apple trees.

BROOM CORN STALKS.

Messrs. E. and J. CUSHMAN, of North Amherst, have succeeded in making good wrapping paper from these stalks, which have been considered worthless. They mix the stalks, in about equal quantities, with rye straw. The value of this invention may be inferred from the fact that rye straw is worth $7 per ton, and stalks may be had for the gathering.

Application has been made for a patent.

R. B. H.

For the New England Farmer.

THE WINTER.

MR. EDITOR:—With your permission, I will give the readers of the *Farmer* a short account of the past severe winter. Although we have not had as severe weather as reports bring from other places, yet it has been uncommonly severe. Snow that fell on Dec. 25 still remains, and we have had good and uninterrupted sleighing from that time to March 20, when the main roads began to be bare, and about the 25th we began to use wagons; although at this time the ground is two-thirds covered with snow, with enormous drifts in many places. The snow in March drifted more than in any previous month, and consequently the measurement is quite uncertain. The following is the amount of snow in this place:—

December.....14 inches.	February.....5½ inches.
January.....17 inches.	March.....13 inches.

Making about 49½ inches. We have had no rain, except a light mist on the forenoon of Feb. 12.

Owing to the topography of the place, we have generally less snow and rain than other places around us. We are situated in the valley of Otter Creek, with the Green Mountains on the east, a moderate range of hills on the west and south, while at the north the land is decidedly higher and more hilly, which gives us climatic conditions of less intensity, regarding temperature and humidity, than may places around us.

The following table exhibits the extreme cold days during the winter, with the temperature at three observations during the day, and the daily mean:—

DECEMBER, 1855.

Days.	7 a. m.	2 p. m.	9 p. m.	Mean.
20	10	3.5	2	-1.50

JANUARY, 1856.

4	10	9	6.5	4.16
5	22	-1	0	-7.66
6	1	7	-6	.66
7	-16	19	20	7.66
8	21	20	-1	13.33
9	-5	2	-4	-2.33
12	-6	21	12.5	13.16
20	-10	7	-2	1.67
22	-16	13	-2	1.67
25	-4	1.5	-2.5	-1.67
26	-18.5	20	13.5	7.00

FEBRUARY, 1856.

Days.	7 a. m.	2 p. m.	9 p. m.	Mean.
3	-4	13	4	4.33
4	-2	13	5	5.34
5	-2	13	0	3.66
13	-15	4.5	8.5	6.33
14	-16	10	3	1.00
15	-5.5	18	18	10.17

MARCH, 1856.

9	-15	10	-2.5	-2.50
10	-17	10	5	-.67

MONTHLY MEANS.

	7 a. m.	2 p. m.	9 p. m.	Mean.
December	23.27	31.34	24.88	26.49
January	6.28	18.63	10.40	11.72
February	9.46	23.75	14.88	16.03
March	16.81	29.96	21.40	22.75

The prevailing wind, in the region of the clouds, has been from between west and north-west, while the amount of cloudiness is between 5 and 6-10. The weather continues cold. Thermometer this morning 10 deg. at sunrise.

Brandon, Vt., April 1. D. BUCKLAND.